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Cultural Beliefs Regarding Perinatal Dietary Habits Among Women In Selected Rural Communities Of Bangalore

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Abstract

Background: Cultural beliefs substantially influence dietary practices during pregnancy, the postnatal period, and lactation, especially in rural settings. These beliefs may affect maternal and neonatal health outcomes; therefore, understanding them is essential for designing culturally appropriate maternal nutrition interventions. **Objectives:** To identify perinatal dietary beliefs among rural women and examine associations with selected demographic variables. **Methods:** A descriptive cross-sectional study was conducted among 100 married women aged 20–50 years residing in rural communities of Bangalore, Karnataka. Data were collected using a structured interview questionnaire comprising demographic details and 50 dichotomous items assessing cultural beliefs during pregnancy, the postnatal period, and lactation. Content validity was established through expert evaluation, and reliability was confirmed using the split-half method ($r > 0.70$). Data were analysed using descriptive statistics and chi-square tests. **Results:** The overall mean cultural belief score was 32.84 ± 9.0, corresponding to a mean percentage of 65.7%. Domain-wise mean percentages were 67.0% during pregnancy, 57.0% during the postnatal period, and 64.4% during lactation. Significant associations were observed between belief levels and age ($\chi^2(2) = 14.57$, $p < 0.001$) and educational status ($\chi^2(4) = 10.03$, $p = 0.04$). No significant associations were found with other demographic variables. **Conclusion:** Perinatal dietary beliefs remain prevalent; culturally tailored, family-inclusive nutrition education is recommended.

Keywords: Cultural beliefs, Food taboos, Lactation, Perinatal diet, Rural women

Introduction

Pregnancy and lactation are physiologically demanding periods characterised by increased nutritional requirements to support foetal growth, maternal tissue expansion, and adequate breast milk production. Optimal maternal nutrition during the perinatal period plays a crucial role in determining maternal and neonatal outcomes, including birth weight, immune competence, and long-term child development (1,2).

Despite established nutritional recommendations, dietary practices during pregnancy are often shaped by sociocultural beliefs and traditional norms. In many developing countries, including India, food taboos and cultural classifications such as “hot” and “cold” foods influence maternal dietary intake (3,4). These beliefs

may lead to avoidance of nutrient-rich foods such as fruits, vegetables, pulses, and animal-source foods due to fears of miscarriage, difficult labour, or adverse foetal outcomes (5).

Rural communities are particularly influenced by intergenerational transmission of beliefs, advice from elders, and traditional health practices. Studies conducted in South Asia and Africa have shown that cultural perceptions significantly affect food choices during pregnancy and lactation, sometimes resulting in inadequate dietary intake and suboptimal maternal weight gain (6,7).

Understanding culturally rooted dietary beliefs is essential for developing effective, culturally sensitive maternal nutrition interventions. Identifying prevailing beliefs and examining their association with demographic and obstetric factors can inform targeted educational strategies in community settings. Therefore, the present study aimed to identify cultural beliefs regarding perinatal dietary habits among women in selected rural communities and to determine their association with selected demographic variables.

Methods

Study Design and Setting

A descriptive cross-sectional study was conducted in selected rural communities of Ramohalli and Malagundanahalli under K. Gollahalli Primary Health Centre, Bangalore, Karnataka, India.

Study Population and Sampling

The study population comprised married women aged 20–50 years residing in the selected rural communities. Women who were willing to participate and able to understand Kannada were included in the study. Unmarried women and those not present at the time of data collection were excluded.

A total of 100 participants were selected using a non-probability convenience sampling technique to conduct the study. Data were collected at an average of 10 respondents per day.

Instrument Development

Data were collected using a structured interview questionnaire developed based on a review of relevant literature and guided by Leininger's Sunrise Model, which emphasises the influence of cultural and social factors on health behaviours.

A blueprint was prepared prior to tool construction to ensure adequate distribution of items across content areas related to perinatal dietary beliefs.

The final instrument consisted of two sections:

- Section A: Demographic characteristics, including age, religion, type of family, educational level, occupational status, family income, type of food habit, place of delivery, gravida, and source of information.
- Section B: Cultural beliefs regarding perinatal dietary habits.

Section B included 50 dichotomous (yes/no) items distributed across three domains:

- Pregnancy (33 items)
- Postnatal period (7 items)
- Lactation (10 items)

Scoring Procedure

Each item had two response options: “yes” or “no.” A score of zero was assigned to “yes” responses and one to “no” responses. The total score ranged from 0 to 50. Scores were converted into percentages and categorised as:

- Strong belief: 76–100%
- Moderate belief: 51–75%
- Mild belief: Below 50%

No participants fell under the strong belief category (76–100%). Therefore, only mild and moderate categories were considered for inferential analysis.

Validity and Reliability

Content validity of the instrument was established through expert review. The tool, along with the scoring key and criteria checklist, was submitted to a panel of nine experts, including two doctors, two community health nursing educators, three obstetric and gynaecological nursing educators, and one statistician. Suggestions were incorporated to improve clarity and relevance.

Reliability of the instrument was established using the split-half method. The tool was administered to nine subjects and divided into two equivalent halves. The correlation between the halves was calculated using Karl Pearson’s correlation coefficient. The reliability coefficient for the whole test was estimated using the Spearman-Brown prophecy formula and was found to be greater than 0.70, indicating acceptable reliability.

Pilot Study

A pilot study was conducted in Kenchanapura, Bangalore, from 06.08.07 to 14.08.07 after obtaining prior permission from the medical officer of K. Gollahalli Primary Health Centre. Thirty participants were selected using simple random sampling. The tool was found to be feasible and practicable. Participants included in the pilot study were excluded from the main study.

Data Collection Procedure

Data were collected through face-to-face interviews after obtaining informed consent from the participants. Confidentiality and anonymity were ensured throughout the study.

Ethical Statement

The study received approval from the Institutional Research Committee of Sarvodaya College of Nursing, Bengaluru and necessary permissions were obtained from the medical officer of K. Gollahalli PHC prior to the study initiation. Written consent was obtained from the participants prior to data collection.

Statistical Analysis

Data were coded and entered into statistical software for analysis. Descriptive statistics, including frequency, percentage, mean, and standard deviation, were used to summarise demographic characteristics and belief scores. The chi-square test was applied to determine the association between knowledge of cultural beliefs and selected demographic variables. A p-value less than 0.05 was considered statistically significant.

Table 1A. Distribution of Subjects Based on Demographic Characteristics

Sl. No	Demographic Variable	Category	Frequency	Percent (%)
1	Age	21–25	31	31.0
		26–40	47	47.0
		41–50	22	22.0
2	Type of Family	Nuclear	58	58.0
		Joint	35	35.0
		Extended	7	7.0
3	Type of Religion	Hindu	92	92.0
		Muslim	2	2.0
		Christian	6	6.0

Table 1B. Educational Level and Occupational Status of Respondents and Their Spouses

Variable	Category	Self n (%)	Spouse n (%)
Educational Level	Illiterate	26 (26.0)	16 (16.0)
	Primary	14 (14.0)	10 (10.0)
	Middle	29 (29.0)	15 (15.0)
	High School	27 (27.0)	36 (36.0)
	PUC	4 (4.0)	14 (14.0)
	Graduate	0 (0.0)	9 (9.0)
Occupational Status	Housewife	100 (100.0)	0 (0.0)
	Government	0 (0.0)	11 (11.0)
	Private	0 (0.0)	22 (22.0)
	Business	0 (0.0)	35 (35.0)
	Agriculture	0 (0.0)	32 (32.0)

Table 1C. Distribution of Respondents by Family Income, Obstetric Characteristics, and Source of Information

Variable	Category	Frequency	Percent (%)
Family Income / Month	Below Rs.3000	41	41.0
	Rs.3000–4000	47	47.0
	Above Rs.4000	12	12.0
Type of Food Habit	Vegetarian	9	9.0
	Non-vegetarian	92	92.0
Place of Delivery	Government hospital	64	64.0
	Private hospital	16	16.0
	Home delivery	20	20.0
Gravida	Primi gravida	28	28.0
	Multi gravida	72	72.0
Source of Information*	Family members	93	93.0
	Friends/neighbours	47	47.0
	Health personnel	1	1.0
	Magazines/journals/books/TV/radio	7	7.0

*Multiple responses were received

Table 1A, 1B, 1C shows demographic and baseline characteristics of the participants. With respect to age, 47% of the respondents were between 26–40 years, 31% were between 21–25 years, and 22% were between 41–50 years. The majority belonged to nuclear families (58%), followed by joint families (35%)

and extended families (7%). Most participants were Hindus (92%), while 6% were Christians and 2% were Muslims.

Regarding educational status, 29% of the respondents had completed middle school, 27% had high school education, 26% were illiterate, 14% had primary education, and 4% had PUC education. None of the respondents were graduates. In contrast, among spouses, 36% had a high school education, 16% were illiterate, 15% had a middle school education, 14% had a PUC education, 10% had a primary education, and 9% were graduates.

All respondents (100%) were housewives. Among spouses, 35% were engaged in business, 32% in agriculture, 22% in private employment, and 11% in government service.

In terms of monthly family income, 47% reported earning Rs. 3000–4000 per month, 41% earned below Rs. 3000, and 12% earned above Rs. 4000. The majority of respondents (92%) followed a non-vegetarian diet, while 9% were vegetarians.

Regarding place of delivery, 64% had delivered in government hospitals, 20% had home deliveries, and 16% delivered in private hospitals. Most respondents were multigravida (72%), while 28% were primigravida.

Family members were the primary source of information regarding perinatal dietary practices (93%). Friends or neighbours were reported by 47%, magazines/journals/books/TV/radio by 7%, and health personnel by only 1%. (Multiple responses were recorded.)

Table 2. Identification of Cultural Beliefs Regarding Perinatal Dietary Habits

Aspects	Statements	Max Score	Range Score	Mean	Mean (%)	SD (%)
Pregnancy	33	33	14–28	24.41	67.0	9.0
Postnatal period	7	7	2–6	3.99	57.0	15.3
Lactation	10	10	3–10	6.44	64.4	14.4
Total	50	50	20–40	32.84	65.7	9.0

From Table 2, the total possible score for the identification of cultural beliefs was 50. The overall mean score obtained by the respondents was 32.84, corresponding to a mean percentage of 65.7% (SD = 9.0%). Domain-wise analysis revealed that during pregnancy (33 items), the mean score was 24.41 with a mean percentage of 67.0% (SD = 9.0%). For the postnatal period (7 items), the mean score was 3.99, with a mean percentage of 57.0% (SD = 15.3%). During lactation (10 items), the mean score was 6.44, corresponding to a mean percentage of 64.4% (SD = 14.4%). These findings indicate comparatively higher identification of cultural beliefs during pregnancy and lactation than during the postnatal period.

Table 3. Association Between Knowledge of Cultural Beliefs and Selected Demographic Variables

Sl. No	Variable	Category	Mild n (%)	Moderate n (%)	χ^2	P value
1	**Age**	21–25	15 (48.4)	16 (51.5)	14.57	<0.001*
		26–40	27 (57.5)	20 (42.5)		
		41–50	2 (9.1)	20 (90.9)		
2	**Type of Family**	Nuclear	29 (50.0)	29 (50.0)	2.91	0.23
		Joint	12 (34.3)	23 (65.7)		
		Extended	3 (42.9)	4 (57.1)		
3	**Type of Religion**	Hindu	41 (44.6)	51 (55.4)	4.38	0.11
		Muslim	1 (16.7)	5 (83.3)		
		Christian	2 (100.0)	0 (0.0)		
4	**Educational Level**	Illiterate	6 (23.1)	20 (76.9)	10.03	0.04*
		Primary	8 (57.1)	6 (42.9)		
		Middle	11 (37.9)	18 (62.1)		
		High school	17 (63.0)	10 (37.0)		
		PUC	2 (50.0)	2 (50.0)		
5	**Educational Level of Spouse**	Illiterate	7 (43.8)	9 (56.2)	7.85	0.16
		Primary	3 (30.0)	7 (70.0)		
		Middle	4 (26.7)	11 (73.3)		
		High school	15 (41.7)	21 (58.3)		
		PUC	8 (57.1)	6 (42.9)		
		Graduation	7 (77.8)	2 (22.2)		
6	**Occupational Status of Spouse**	Government	6 (54.5)	5 (45.5)	2.31	0.51
		Private	12 (54.6)	10 (45.4)		
		Business	13 (37.1)	22 (62.9)		
		Agriculture	13 (40.6)	19 (59.4)		
7	**Family Income/ Month**	Below Rs.3000	18 (43.9)	23 (56.1)	1.24	0.54
		Rs.3000–4000	19 (40.4)	28 (59.6)		
		Above Rs.4000	7 (58.3)	5 (41.7)		
8	**Place of Delivery**	Govt hospital	32 (50.0)	32 (50.0)	2.65	0.27
		Private hospital	5 (31.3)	11 (68.7)		
		Home delivery	7 (35.0)	13 (65.0)		
9	**Gravida**	Primi gravida	14 (50.0)	14 (50.0)	0.57	0.45

* Significant at 0.05 level

From Table 3, none of the respondents demonstrated strong belief levels, hence, the analysis was restricted to mild and moderate categories. Chi-square analysis showed a statistically significant association between age ($\chi^2 = 14.57$, $p < 0.001$) and educational level ($\chi^2 = 10.03$, $p = 0.04$) with knowledge of cultural beliefs. No significant association was observed with other demographic variables ($p > 0.05$).

Discussion

The present study assessed cultural beliefs regarding perinatal dietary habits and their association with selected demographic variables among women in selected rural communities.

The majority of respondents were between 26–40 years of age and predominantly belonged to nuclear families. Most participants were homemakers, and nearly one-fourth were illiterate. Family members were identified as the primary source of information regarding perinatal dietary practices (93%), while health personnel contributed minimally (1%). This finding highlights the strong influence of intergenerational knowledge transmission within rural households. Similar observations have been reported in Indian and South Asian settings where elders and family traditions significantly shape pregnancy-related dietary behaviours (4,7).

The overall mean percentage score for identification of cultural beliefs was 65.7%, indicating a moderate level of culturally influenced dietary beliefs among respondents. Domain-wise analysis showed higher mean percentage scores during pregnancy (67.0%) and lactation (64.4%) compared to the postnatal period (57.0%). Pregnancy is widely regarded as a culturally sensitive period surrounded by dietary prescriptions and taboos intended to safeguard maternal and foetal health (3,6). Cultural food beliefs during lactation are also commonly practised with the intention of enhancing milk production and maternal recovery (5,8).

A statistically significant association was observed between age and knowledge of cultural beliefs ($p < 0.05$). Women aged 41–50 years demonstrated higher levels of moderate knowledge compared to younger women. This may be attributed to accumulated life experience and repeated exposure to traditional practices over successive pregnancies. Studies in rural communities have similarly reported stronger adherence to traditional dietary norms among older women (6).

The respondents' educational level was also significantly associated with knowledge of cultural beliefs ($p < 0.05$). Interestingly, a higher proportion of illiterate women demonstrated moderate knowledge compared to women with higher educational attainment. This suggests that cultural dietary beliefs are deeply embedded within community traditions and may persist irrespective of formal schooling. Previous studies have shown that education alone does not necessarily eliminate food taboos when such beliefs are reinforced by family and social structures (3,9,10).

No significant association was found between knowledge of cultural beliefs and type of family, religion, spouse's education, spouse's occupation, family income, place of delivery, or gravida status. This indicates that cultural beliefs regarding perinatal diet are widely shared across socioeconomic and obstetric categories within the community. Similar findings have been documented in rural populations where food taboos are culturally normative and not restricted to specific income or educational groups (6,10).

Although a majority of women reported institutional deliveries (64% in government hospitals), the very limited role of health personnel as a source of dietary information suggests missed opportunities for culturally appropriate counselling during antenatal and postnatal care visits. The importance of integrating culturally sensitive nutrition education within maternal health services has been emphasised in global maternal health guidelines (2). Furthermore, adequate maternal nutrition is essential to prevent maternal and child undernutrition and its long-term consequences (1).

Overall, the findings demonstrate that cultural beliefs regarding perinatal dietary habits remain prevalent in rural communities. Maternal nutrition interventions should therefore incorporate culturally congruent strategies rather than relying solely on biomedical recommendations.

Conclusion

Cultural beliefs regarding perinatal dietary habits remain prevalent among women in the selected rural communities. Beliefs were more prominent during pregnancy and lactation, and age and educational status showed significant associations with knowledge levels. Family members were the primary source of information, while health personnel had minimal influence. These findings highlight the need for culturally sensitive maternal nutrition education that actively involves families and community support systems.

Study Limitations

The study was limited by its cross-sectional design, which does not permit causal inferences. The use of convenience sampling and restriction to selected rural communities limits the generalizability of the findings. Data were based on self-reported responses, which may be influenced by recall or social desirability bias. Additionally, the study assessed knowledge of cultural beliefs but did not evaluate actual dietary intake or nutritional status.

Future Directions

Future research should include larger, randomly selected samples to improve generalizability across diverse rural and urban populations. Longitudinal studies are needed to examine how cultural beliefs influence actual dietary intake and maternal nutritional outcomes over time. Incorporating objective dietary assessments and nutritional status measurements would provide stronger evidence of the impact of these beliefs. Additionally, intervention studies evaluating culturally tailored nutrition education programs involving family members and community health workers are recommended to determine effective strategies for improving maternal dietary practices.

References

1. Black RE, Victora CG, Walker SP, Bhutta ZA, Christian P, de Onis M, Ezzati M, Grantham-McGregor S, Katz J, Martorell R, Uauy R; Maternal and Child Nutrition Study Group. Maternal and child undernutrition and overweight in low-income and middle-income countries. Lancet. 2013 Aug 3;382(9890):427-451. doi: 10.1016/S0140-6736(13)60937-X. Epub 2013 Jun 6. Erratum in: Lancet. 2013. 2013 Aug 3;382(9890):396.
2. World Health Organization. WHO recommendations on antenatal care for a positive pregnancy experience. Geneva: World Health Organization; 2016.
3. Nag M. Beliefs and practices about food during pregnancy: implications for maternal nutrition. Econ Polit Wkly. 1994;29(37):2427-2438.
4. Choudhry UK. Traditional practices of women from India: pregnancy, childbirth, and newborn care. J Obstet Gynecol Neonatal Nurs. 1997 Sep-Oct;26(5):533-9. doi: 10.1111/j.1552-6909.1997.tb02156.x.
5. Hartini TN, Padmawati RS, Lindholm L, Surjono A, Winkvist A. The importance of eating rice: changing food habits among pregnant Indonesian women during the economic crisis. Soc Sci Med. 2005 Jul;61(1):199-210. doi: 10.1016/j.socscimed.2004.11.043. Epub 2005 Jan 11. PMID: 15847972.
6. Zerfu TA, Umeta M, Baye K. Dietary habits, food taboos, and perceptions towards weight gain during pregnancy in Arsi, rural central Ethiopia: a qualitative cross-sectional study. J Health Popul Nutr. 2016 Jul 25;35(1):22. doi: 10.1186/s41043-016-0059-8.
7. Ali NS, Azam SI, Noor R. Womens' beliefs and practices regarding food restrictions during pregnancy and lactation: a hospital based study. J Ayub Med Coll Abbottabad. 2004 Jul-Sep;16(3):29-31.

8. Otoo GE, Lartey AA, Pérez-Escamilla R. Perceived incentives and barriers to exclusive breastfeeding among periurban Ghanaian women. J Hum Lact. 2009 Feb;25(1):34-41. doi: 10.1177/0890334408325072. Epub 2008 Oct 29. PMID: 18971507.

9. Kumar B, Bose T, Das S, Gupta AK, Kumar A, Bhandari A. An assessment of knowledge and practices of breastfeeding among mothers having child less than 2 years of age in a city of central Uttar Pradesh, India. Int J Contemp Pediatr 2021;8:48-54.

10. Patil R, Mittal A, Vedapriya DR, Khan MI, Raghavia M. Taboos and misconceptions about food during pregnancy among rural population of Pondicherry. Cal Med J. 2010;8(2):e4.