

Trends of Puerperal Practices Among Women Attending Gynae OPD at Ayub Teaching Hospital

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Abstract

Background: The postpartum period, culturally specific and influenced by diverse practices, plays a significant role in the health and recovery of mothers and infants. The importance of cultural traditions in providing social and emotional support during this time is well-acknowledged.

Objective: This study aims to explore cultural postpartum traditions in Pakistan, specifically focusing on the "chilla" period, and examine their impact on maternal and neonatal health outcomes.

Material and Methods: Conducted at the OPD clinics of a Gynecology & Obstetrics department, this descriptive cross-sectional study included 349 women. It utilized questionnaires to gather data on traditional postpartum care practices, with analysis performed via IBM SPSS.

INTRODUCTION:

The period following childbirth, known as the postpartum period or puerperium, commences approximately an hour after the placenta has been delivered and extends for six weeks thereafter.(1) During this timeframe, the physiological and anatomical changes attributed to pregnancy, labor, and delivery generally return to the pre-pregnancy state.(2) This phase is critical for the woman's

Results: Findings highlighted a variety of traditional practices, with a significant portion of participants altering their diets and engaging in specific care practices for the mother and newborn. Key health outcomes included neonatal jaundice, respiratory problems, and the influence of delivery mode on health practices and complications.

Conclusion: The persistence of traditional postpartum practices among urban Pakistani mothers has a discernible impact on maternal and neonatal health. This study underscores the need for healthcare professionals to consider cultural practices in postpartum care strategies, potentially informing future health education programs.

recovery, necessitating appropriate postpartum care and a nutritious diet to facilitate healing and recuperation from pregnancy and childbirth.(3–5) Despite the universal nature of childbirth physiology and the psychological challenges encountered by women during birth, cultural specificity plays a significant role in shaping the childbirth experience. Various cultural beliefs and practices significantly influence the childbirth process across different

societies.(6–8) Moreover, the postpartum period plays a pivotal role in several social dynamics, including the transition of individuals into parenthood and the establishment of a parent-child bond. This phase also reflects societal perceptions of the roles and values of children and parents within the cultural context.(9,10)

The World Health Organization (2014) identifies the postnatal period as crucial for the well-being of mothers and infants, highlighting the significance of cultural traditions that offer social and emotional support during this time.(11) Research, including ethnographic and qualitative studies, emphasizes the positive impact of postpartum practices, such as extended rest and shared domestic responsibilities, on a mother's recovery and the prevention of postpartum depression.(12–17) Examples from diverse cultures, including Hmong women in Australia and Kipsigis women in Kenya, illustrate the benefits of traditional support systems.(15,16) However, the absence of such support, as seen in Jordanian Muslim immigrant mothers in Australia, can lead to postpartum depression.(18) These traditions are vital for the physical and psychological health of mothers and are considered an integral part of infant health care strategy.

Research highlights the postpartum period as a time when women are particularly vulnerable and dependent, necessitating a recovery phase that includes breastfeeding and rest, enabling them to resume household duties.(9) This period is culturally recognized across various societies, emphasizing the mother's transition back to her non-pregnant state while safeguarding the wellbeing of both mother and child.(19–22) Studies focusing on Bengali immigrant mothers in London and Hunzai mothers in Pakistan have identified the heightened risk of exposure to both natural and supernatural threats during postpartum and early infancy.(19,20) Dietary and lifestyle practices during the postpartum period exhibit considerable variation across different nations and cultural backgrounds. In Western nations, the emphasis is on encouraging postpartum women to consume a balanced diet encompassing all food groups and to engage in physical activities.(26,27) Conversely, Pakistan has witnessed fluctuating economic advancements and shifts in cultural practices over recent decades. Despite a reduction in traditional postpartum

customs due to the extensive reach of health services through initiatives like the Lady Health Workers (LHWs) program and the Maternal, Newborn and Child Health (MNCH) program, such practices persist in numerous rural regions of the country.

In Pakistan the post-partum period is known as “chilla” meaning 40 days, or “sawa mahina” as in Punjab meaning five weeks.(9) This period has its own cultural attributes that vary among the ethnicity of a geographical region. This study aims to fill in the literature gap about cultural post-partum / puerperal traditions of our region. This research is anticipated to offer valuable insights for healthcare policymakers, social workers, and providers, facilitating the development of more effective strategies for health education programs.

MATERIAL & METHODS

This was a descriptive cross-sectional study conducted at the OPD clinics Of department of Gynecology & Obstetrics Ayub Teaching Hospital Abbottabad from January 2022 to December 2022. A total of 349 women who presented to the OPD clinics for any reason were included in the study after obtaining an informed consent using a non-probability consecutive sampling method. The study participants were offered a questionnaire exploring the traditional practices involving the care of the mother and the newborn during the puerperium.

Data were recorded in and analyzed using IBM SPSS® v 25. Continuous variables were described as means and standard deviation while categorical variables were described as frequencies and percentages. Data was stratified by age, parity, education, and socioeconomic status, Post-stratification Pearson's chi-square test was applied and a p value of ≤ 0.05 was taken as significant.

RESULTS

Analysis of maternal and neonatal health outcomes based on our descriptive cross-sectional study with 349 participants yielded several key findings.

The age range of the participants was from 19 to 37 years, with an average age of approximately 28 years. The standard deviation for age was around 5.6 years. In terms of parity, the values ranged from 1 to 5 previous births, with an average parity of about 2.9. The days taken for postpartum mobilization also varied from 1 to 5 days, averaging around 2.3 days,

with a standard deviation of 1.5 days, indicating moderate variability in the time taken by new mothers to mobilize after giving birth.

The modes of delivery were predominantly vaginal (63.9%) and cesarean section (36.1%). Home deliveries accounted for 23.2% of cases, while hospital deliveries were more common at 76.8%. Incidences of postpartum hemorrhage were rare, observed in only 0.9% of participants, whereas the majority did not experience this complication (99.1%). Breast problems were reported by 22.1% of the respondents. Surgical site infections were noted in 8.0% of the cases. Deep vein thrombosis and postpartum psychosis were infrequent, with prevalences of 1.7% and 0.6%, respectively. Dietary restrictions were reported by 70.2% of the participants. A significant proportion of women indicated changes in water (65.3% reported reduced intake) and milk intake (47.9% reported consuming milk). Supplement use was nearly evenly split among the participants (51.0% reported using supplements). Early mobilization postpartum was observed, with 49.0% mobilizing within 24 hours. Feeding practices varied, with breast milk, formula milk, and ghutti being initial feeds for 36.1%, 29.5%, and 34.4% of the newborns, respectively. Neonatal jaundice (63.0%) and respiratory problems (19.8%) were among the notable neonatal outcomes. Cord infections were reported in 14.0% of the cases. These findings provide insights into the prevalent health practices and outcomes among the study population, highlighting areas for further research and intervention (Table-1).

The data was stratified by mode of delivery to observe any associations. These included the association of modes of delivery with postpartum hemorrhage, breast problems, surgical site infection, deep vein thrombosis, postpartum depression, psychosis, dietary restrictions, water and milk intake, use of supplements, mobilization timing, breastfeeding practices, neonatal jaundice, respiratory problems, cord infections, circumcision, and the place of delivery.

Among 349 participants, 77 reported different breast problems such as breast tenderness, pain and swelling in either or both breasts early in puerperium. Of these, 57 had undergone vaginal delivery, and 20 had cesarean sections. Contrastingly, 166 women who delivered vaginally

and 106 who underwent cesarean reported no breast problems. Statistical significance was established with a Pearson Chi-Square value of 4.394, indicating a possible correlation between delivery mode and the occurrence of breast problems ($p=0.036$). The findings from the Likelihood Ratio and Fisher's Exact Test further supported this association, suggesting that the mode of delivery could be a factor influencing the incidence of breast problems post-delivery (Table-2).

The study observed surgical site infections in 28 out of 349 cases. Notably, cesarean sections were associated with a higher incidence of infections, with 26 cases, compared to only 2 cases following vaginal delivery. This statistically significant difference was reflected in the Pearson Chi-Square test result of 42.506, with a p -value of less than 0.001, indicating a strong association between cesarean sections and the increased risk of surgical site infections. The data underscores the need for enhanced surgical site care, particularly following cesarean deliveries (Table-3).

Within the examined cohort, deep vein thrombosis (DVT) was reported exclusively in cesarean section deliveries, with 6 incidents out of 126 cases, representing a notable contrast to the absence of DVT in the 223 vaginal deliveries. The statistical analysis, which employed the Pearson Chi-Square test among others, revealed a significant correlation between cesarean delivery and the occurrence of DVT ($p=0.001$). This suggests that cesarean sections may be a risk factor for DVT in the postpartum period (Table-4).

Among the participants, 126 women engaged in breastfeeding post-delivery. The distribution across delivery methods was uneven, with 90 instances following vaginal delivery, and 36 after cesarean sections. Conversely, breastfeeding was not initiated in 133 cases of vaginal delivery and 90 cases of cesarean section. Statistical tests, including the Pearson Chi-Square, indicated a significant association between the mode of delivery and breastfeeding initiation ($p=0.028$), suggesting that the type of delivery may influence breastfeeding practices (Table-5).

In the cohort, 166 newborns received their first bath within the first 24 hours after birth, with 97 following vaginal delivery and 69 post-cesarean section. The remaining 183 babies had their first

bath after the 24-hour mark. Statistical analysis using the Pearson Chi-Square test indicated a marginal association between the mode of delivery and the timing of the first bath ($p=0.043$), suggesting that the type of delivery might influence early postnatal care practices (Table-6).

No statistically significant association was observed between modes of delivery and other variables.

DISCUSSION

Maternal involvement is crucial in the upbringing and care of children, influencing their health and behavioral outcomes. The level of education, awareness, and domestic routines of mothers can significantly affect the quality of childcare.(28) A deficiency in formal education might hinder a mother's capability to provide optimal care for her infant, a finding supported by existing literature.(29) Despite the observation that a minority of mothers in the analyzed cohort possessed university degrees, no correlation was found between maternal educational attainment or other socio-demographic variables, such as age and employment status, and childcare practices. However, investigating the potential relationship between ethnic background and traditional practices, which may lead to hazardous behaviors, remains an area of interest for further research.(30,31)

Building upon our research, we discovered that a majority of our study participants—over two-thirds—altered their diets significantly in the postnatal period. They eschewed their usual food intake in favor of more calorie-dense options. These included traditional foods like "desi-ghee," a type of clarified butter, and sweet dishes such as "panjiri" and "halwa," which we detailed in Table 1 of our findings. Interestingly, water consumption was markedly reduced, with more than 65% of new mothers reporting they drank less during the postpartum period.

We also noted that slightly over half of our participants turned to nutritional supplements, attributing their usage to combating feelings of fatigue and weakness common in postpartum women. On the flip side, around the same percentage increased their milk intake post-delivery. From a cultural standpoint, foods like "Panjiri" and "Halwa" are believed to be powerful energy sources for new mothers(32), and our research supports the

notion that these dishes are a go-to choice for women in puerperium, as also observed in literature, which reports that between 25% and 33% of South Asian women during their postpartum diet choose these diets.(32,33) These findings align with the conventional wisdom within these communities.

Over half of the maternal respondents in the research indicated engaging in the practice of colostrum disposal, with 58% affirming this behavior, which aligns with previously documented observations in relevant studies.(31) Additionally, 47.6% of participants acknowledged administering a bath to their neonates within the first 24 hours post-delivery. Kohl application to the neonates' eyes was a practice reported by over 90% of the mothers surveyed.

In terms of neonatal health outcomes within the study population, the most frequently encountered complication was neonatal jaundice, affecting 63% of the neonates. This was followed by respiratory distress, present in 19.8% of cases, and infections of the umbilical cord, which were noted in 14% of the neonates.

In the context of Pakistan, there is a pronounced concern among parents and extended family members regarding their children's bodily mass and its comparison with that of other children. Such concerns may impel the premature initiation of solids in infants' diets—an observation corroborated by findings within the current research and aligned with existing literature.(34) Breast milk, consisting of approximately 88% water, satisfies an infant's hydration needs up to six months of age. External hydration, specifically through top feeding, is generally recommended only in conditions of extreme heat or fever to prevent dehydration.(35) Nevertheless, the introduction of water to infants within the first six months can elevate the risk of infections and water intoxication, potentially leading to seizures caused by hyponatremia; this is attributable to the limited capacity of an infant's kidneys to excrete surplus water.(36)

The investigation also identified several hazardous practices among the surveyed mothers. For instance, bathing neonates immediately post-birth has been associated with the onset of hypothermia.(37) Similarly, the application of potentially contaminated substances such as oil, ghee, or kohl (Surma) to the umbilical cord, often believed to

expedite healing, may indeed increase the vulnerability of infants to neonatal tetanus.(38) Although the practice of massaging infants, which originated in China and has gained prominence in regions such as Pakistan and India, generally conveys health benefits, negligence in maintaining hygiene or applying inappropriate techniques may lead to skin afflictions and bacterial infections. Excessive force during massage has also been documented to raise the likelihood of bone fractures in neonates.(39) Moreover, the practice of positioning infants to lie supine on rigid surfaces may result in the development of flathead syndrome (positional plagiocephaly), which not only impedes cranial expansion but is occasionally deployed by mothers with the intent of molding the infant's head shape.(40,41)

Neonates who are of low birth weight or born preterm have been observed to have an increased susceptibility to infections and allergic reactions.(42) It is estimated that approximately 11% of global infant mortality can be attributed to complications related to being born preterm or small for gestational age, with reports indicating a greater prevalence in the South Asian region.(43) Data from the current study suggest that close to one third (31%) of the neonates sampled fall into the categories of preterm and low birth weight.

This research examines the persistence of conventional infant care methods among mothers living in urban Pakistani environments and investigates the connection between these practices and infant health and developmental outcomes. In an effort to mitigate the risk of recall bias, the study's participant pool was limited exclusively to mothers currently raising infants. However, despite this precaution, the potential for inaccuracies in reporting remains a concern. Due to the cross-sectional design of the study, causality between the traditional care practices and infant development and health outcomes cannot be conclusively determined. Nonetheless, the findings of this research may serve as foundational hypotheses for future longitudinal studies aimed at discovering and validating causal relationships.

To conclude, this research suggests that a range of beliefs, customs, and practices may influence infant health and development adversely. Many of these practices, prevalent in Pakistan, appear to lack empirical support and could potentially be detrimental. The initiation of culturally sensitive primary care awareness initiatives during prenatal and postnatal phases, delivered by qualified family physicians, may contribute to the reduction of infant morbidity and mortality.

Table 1 Sociodemographic features of the study population

Mode of delivery		Frequency	Percent
Valid	Vaginal Delivery	223	63.9
	Cesarean Section	126	36.1
	Total	349	100.0
place of delivery		Frequency	Percent
Valid	Home	81	23.2
	Hospital	268	76.8
	Total	349	100.0
Postpartum Hemorrhage		Frequency	Percent
Valid	Yes	3	.9
	No	346	99.1
	Total	349	100.0

Breast Problems		Frequency	Percent
Valid	Yes	77	22.1
	No	272	77.9
	Total	349	100.0
Surgical Site Infection		Frequency	Percent
Valid	Yes	28	8.0
	No	321	92.0
	Total	349	100.0
Deep Vein Thrombosis		Frequency	Percent
Valid	Yes	6	1.7
	No	343	98.3
	Total	349	100.0
Postpartum depression		Frequency	Percent
Valid	Mild Depression	94	26.9
	Moderate Depression	62	17.8
	Severe Depression	48	13.8
	No Depression	145	41.5
	Total	349	100.0

Postpartum psychosis		Frequency	Percent
Valid	Yes	2	.6
	No	347	99.4
	Total	349	100.0
Dietary Restrictions		Frequency	Percent
Valid	Yes	245	70.2
	No	104	29.8
	Total	349	100.0
Water Intake		Frequency	Percent
Valid	Normal Water Intake	121	34.7
	Reduced Water Intake	228	65.3
	Total	349	100.0
Milk Intake		Frequency	Percent
Valid	Yes	167	47.9
	No	182	52.1
	Total	349	100.0
Use of supplements		Frequency	Percent
Valid	Yes	178	51.0
	No	171	49.0
	Total	349	100.0
Mobilization		Frequency	Percent
Valid	Within 24 hours post partum	171	49.0
	More than 24 hours post partum	178	51.0

	Total	349	100.0
First Feed to Baby		Frequency	Percent
Valid	Breast Milk	126	36.1
	Formula Milk	103	29.5
	Ghutti	120	34.4
	Total	349	100.0
Breastfeeding		Frequency	Percent
Valid	Yes	126	36.1
	No	223	63.9
	Total	349	100.0
First bath to baby		Frequency	Percent
Valid	Within 24 hours after birth	166	47.6
	After 24 hours after birth	183	52.4
	Total	349	100.0
Application of Kohl to baby's eyes		Frequency	Percent
Valid	Yes	322	92.3
	No	27	7.7
	Total	349	100.0
Circumcision		Frequency	Percent
Valid	Yes	197	56.4
	No	152	43.6
	Total	349	100.0
Neonatal Jaundice		Frequency	Percent
Valid	Yes	220	63.0
	No	129	37.0
	Total	349	100.0
Respiratory problems in newborn		Frequency	Percent
Valid	Yes	69	19.8
	No	280	80.2
	Total	349	100.0
cord infections		Frequency	Percent
Valid	Yes	49	14.0
	No	300	86.0
	Total	349	100.0

Mode of delivery * Breast Problems

Crosstab
Count

		Breast Problems		Total
		Yes	No	
Mode of delivery	Vaginal Delivery	57	166	223
	Cesarean Section	20	106	126
Total		77	272	349

Table 2 cross tabulation of mode of delivery with frequency of breast problems as reported by the patients

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.394 ^a	1	.036		
Continuity Correction ^b	3.849	1	.050		
Likelihood Ratio	4.562	1	.033		
Fisher's Exact Test				.044	.023
Linear-by-Linear Association	4.381	1	.036		
N of Valid Cases	349				

Crosstab
Count

		Surgical Site Infection		Total
		Yes	No	
Mode of delivery	Vaginal Delivery	2	221	223
	Cesarean Section	26	100	126
Total		28	321	349

Table 3 cross tabulation of mode of delivery with frequency of surgical site infection in study population

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	42.506 ^a	1	.000		
Continuity Correction ^b	39.873	1	.000		
Likelihood Ratio	43.845	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	42.384	1	.000		
N of Valid Cases	349				

**Crosstab
Count**

		Deep Vein Thrombosis		Total
		Yes	No	
Mode of delivery	Vaginal Delivery	0	223	223
	Cesarean Section	6	120	126
Total		6	343	349

Table 4 cross tabulation of mode of delivery with frequency of deep vein thrombosis in study population

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	10.805 ^a	1	.001		
Continuity Correction^b	8.170	1	.004		
Likelihood Ratio	12.412	1	.000		
Fisher's Exact Test				.002	.002
Linear-by-Linear Association	10.774	1	.001		
N of Valid Cases	349				

**Crosstab
Count**

		Breastfeeding		Total
		Yes	No	
Mode of delivery	Vaginal Delivery	90	133	223
	Cesarean Section	36	90	126
Total		126	223	349

Table 5 Breastfeeding in study population

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.849 ^a	1	.028		
Continuity Correction^b	4.352	1	.037		
Likelihood Ratio	4.935	1	.026		
Fisher's Exact Test				.028	.018
Linear-by-Linear Association	4.835	1	.028		
N of Valid Cases	349				

**Crosstab
Count**

		First bath to baby		Total
		Within 24 hours after birth	After 24 hours after birth	
Mode of delivery	Vaginal Delivery	97	126	223
	Cesarean Section	69	57	126
Total		166	183	349

Table 6 Cross-tabulation of first bath to baby according to modes of delivery.

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.096 ^a	1	.043		
Continuity Correction^b	3.657	1	.056		
Likelihood Ratio	4.098	1	.043		
Fisher's Exact Test				.045	.028
Linear-by-Linear Association	4.084	1	.043		
N of Valid Cases	349				

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