Prelacteal Feeding Practices in Pakistan: A Mixed-Methods Study

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Abstract

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Background: Prelacteal feeding – feeding a newborn substances and liquids other than breast milk after birth – is a common cultural practice in Pakistan.

Objective: The aim of this study was to examine social and cultural factors associated with prelacteal feeding in Pakistani children under two years of age.

Methods: This mixed method study is based on the Pakistan Demographic and Health Survey 2012-13 (PDHS), a national representative dataset, and a qualitative study of mothers and health care providers. A subset of PDHS dyads (n= 1,361) with children ages 0 to 23 months at the time of the survey were included in the quantitative analysis. In this sample, descriptive statistics, bivariate and multivariable logistic regression analysis were employed to ascertain factors associated with prelacteal feeding. The qualitative study was based on interviews with 9 mothers and 9 health care providers, and the data were analyzed through thematic analyses.

Results: In PDHS, a majority of children (64.7%) received prelacteal feeding with the most common prelacteals including, milk other than breastmilk, honey, infant formula and Ghutti (an Ayurvedic medicine). In multivariate logistic regression models, many factors were associated with prelacteal feeding. Notably, children born at public health facilities were 37 times less likely to receive a prelacteal feed than those born at private health facilities and home deliveries (AOR:0.63: 95% CI 0.42-0.94). Mothers with primary education (AOR: 2.17 95% CI 1.22-3.85), delayed breastfeeding with one hour

(AOR:0.03: 95% CI 0.01-0.06), and first born child (AOR:1.46 95% CI 1.0-2.0) were more likely to give prelacteals. From the qualitative analyses, major factors associated with prelacteal feedings included the easy availability of prelacteals at medical stores, staff involvement with prelacteal feeding at private hospitals, myths about colostrum, perceived perception of insufficient breast milk, traditional way of the Holy Prophet, and prelacteals as a family tradition for socialization.

Conclusion: Prelacteal feeding is customarily practiced and is a social norm in Pakistan. Policies promoting immediate breastfeeding after a birth need to be informed by an understanding of both the cultural and social factors associated with prelacteal feeding. It is especially important to devise and implement programs to educate the older family members, mothers and young women about the health implications of prelacteals.

Keywords: Prelacteal; delayed breastfeeding; insufficient breast milk, home and hospital deliveries

Results

Table 1: characteristic of dyads including in analysis of prelacteal feeding in Pakistan, PDHS 2012-13 (n=1361)

Variables	Percentage (n=1361)	Prelacteal feeding		P-value
		Yes (n=861; 64.7%)	**No** (n=480; 35.3%)	
Education of Mother				
No education	52.5	63.6	36.7	<0.001
Primary	15.4	75.1	24.9	
Middle	8.2	68.8	31.2	
Secondary	11.4	65.8	34.2	
Higher	12.6	53.2	46.8	
Age of mothers				
15-24	33.1	66.5	33.5	0.27
25-34	52.8	64.9	35.1	
34 and above	14.1	59.9	40.1	
Wealth Index				
Poorest	20.1	56.8	43.2	<0.001
Poorer	20.4	61.2	38.8	
Middle	19.8	69.6	30.4	
Rich	19.6	74.5	25.5	
Richest	20.1	61.9	38.1	
Sex of household head				
Male	93.2	64.0	36	0.030
Female	6.8	74.0	26	
Place of residence				
Urban	43.6	62.3	37.7	0.055

Rural	56.4	66.6	33.4	
Region				
Punjab	28.0	86.6	13.4	<0.001
Sindh	22.1	56.5	43.5	
Khyber Pakhtunkhwa	20.2	73.1	26.9	
Baluchistan	15.0	62.3	37.7	
Islamabad	5.1	56.5	43.5	
Gilgit-Baltistan	9.6	10.7	89.3	
Antenatal care				
No	23.0	59.7	40.3	0.04
1-3 visits	37.6	68.4	31.6	
≥4 visits	39.4	64.1	35.9	
Place of delivery				
At home	45.3	67.2	32.8	<0.001
Public health facility	19.5	51.9	48.1	
Private	35.2	68.7	31.3	
Birth C-section				
No	86.2	63.4	36.6	0.004
Yes	13.9	73.7	26.3	
When child put to breast after delivery				
Within one hour	23.0	38.7	61.3	<0.001
2-24 hours	49.4	59.2	40.8	
After one day	27.6	96.3	3.7	
Sex of child				
Male	50.7	63.6	36.4	0.21
Female	49.3	65.9	34.1	
Birth order				
First born child	23.7	70.5	29.5	0.008
Subsequent children	76.3	62.9	37.1	

Table 2: Analysis of 861 dyads about preferred Prelacteal feeding (PDHS, 2012-13)

Types of prelacteal	Frequency	Percentage
Milk other than breast milk	216	25.1
Honey/sugar water	192	22.3
Infant formula	119	13.8
Marketed Ghutti	132	15.3
Rosewater	41	4.8
Fruit juice/ Green tea	44/41	5.1/4.8
Plain water/gripe water	28/20	3.2/2.3
Others	28	3.3

Table 3: Adjusted and unadjusted odd ratios (95% confidence interval (CI) for factors associated with prelacteal feeding in Pakistan, (PDHS, 2012–2013)

Variables	OR	P-value	95% C.I	AOR	P-value	95% C.I
Education of mother						
No education	1.53	0.013	1.09-2.15	1.27	0.375	0.74-2.20
Primary	2.65	0.000	1.71-4.09	2.17	0.008	1.22-3.85
Middle	1.93	0.010	1.93-1.17	1.73	0.094	0.91-3.31
Secondary	1.69	0.021	1.08-2.64	1.74	0.052	0.99-3.06
Higher	1			1		
Wealth Index						
Poorest	0.80	0.223	0.57-1.13	0.99	0.987	0.56-1.74
Poorer	0.97	0.856	0.68-1.36	1.03	0.903	0.61-1.75
Middle	1.41	0.058	0.98-2.01	1.10	0.697	0.67-1.81
Rich	1.80	0.002	1.24-2.60	1.15	0.558	0.72-1.83
Richest	1			1		
Sex of household						
Male	0.62	0.50	0.38-0.99			
Female	1					
Region						
Punjab	54.07	0.000	28.8-101.3	24.77	0.000	12.1-50.3
Sindh	10.84	0.000	5.95-19.74	7.03	0.000	3.55-13.9
Khyber Pakhtunkhwa	22.70	0.000	12.31-42.0	15.61	0.000	7.76-31.4
Baluchistan	13.78	0.000	7.39-25.68	12.52	0.000	6.11-25.6
Islamabad	10.86	0.000	5.23-52.55	10.15	0.000	4.37-23.5
Gilgit-Baltistan	1			1		
Antenatal care						
No	0.83	0.040	0.62-1.10	0.89	0.637	0.55-1.4
1-3 visits	1.20	0.250	0.93-1.56	1.29	0.173	0.89-1.86

≥4 visits	1			1		
Place of delivery						
At home	0.93	0.604	0.72-1.20	1.07	0.717	0.73-1.56
Public health facility	0.49	0.000	0.36-0.66	0.63	0.025	0.42-0.94
Private	1			1		
Birth C-section						
No	0.62	0.007	0.43-0.87	0.800	0.348	0.50-1.27
Yes	1			1		
When child put to breast						
Within one hour	0.02	0.000	0.14-0.44	0.03	0.000	0.01-0.63
2-24 hours	0.05	0.000	0.32-0.98	0.07	0.000	0.04-0.13
After one day	1			1		
Birth order						
First born child	1.40	0.013	1.07-1.84	1.46	0.000	1.04-2.07
Subsequent children	1			1		