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Original Research Article

The Assessment of Different Positions and Attachment Adopted by Mothers During Breastfeeding

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Abstract: *Appropriate breastfeeding positioning and attachment are essential determinants of successful lactation, adequate milk transfer, and prevention of nipple trauma. Despite global recommendations supporting exclusive breastfeeding for the first six months, technical challenges related to positioning and latch remain common among mothers.* ***Objective:*** *To assess the different breastfeeding positions and attachment practices adopted by mothers attending a tertiary care hospital in Lahore.* ***Methods:*** *A hospital-based descriptive cross-sectional study was conducted over six months (January–June 2025) in the gynecology inpatient ward, Expanded Programme on Immunization (EPI) clinic, and pediatric outpatient department of Ittefaq Hospital, Lahore. A total of 171 breastfeeding mothers were recruited using non-probability convenience sampling. Data were collected using an adopted structured questionnaire comprising demographic variables and assessment of breastfeeding positions (cradle, cross-cradle, football/rugby, and side-lying) and attachment indicators (wide mouth opening, chin-to-breast contact, alignment, switching breasts, seeking professional help, and pain/discomfort). Responses were recorded on a five-point Likert scale. Data were analyzed using SPSS, and results were summarized as frequencies and percentages. Overall practices were categorized as poor, moderate, or good based on cumulative scores.* ***Results:*** *Most mothers were aged 26–35 years (67.3%) and had matric/intermediate education (42.7%). Cradle hold was the most frequently practiced position (57.3% "always"), whereas football/rugby hold was rarely used (71.9% "never"). The side-lying position showed moderate utilization. Regarding attachment indicators, 68.4% always ensured a wide mouth opening before latching, 60.8% ensured nose and chin contact with the breast, and 69.6% maintained proper alignment with the baby facing the mother. However, 53.8% never sought professional help for breastfeeding positioning. Overall evaluation revealed that 45.0% of mothers demonstrated poor positioning and attachment practices, 22.8% moderate, and 32.2% good practices.* ***Conclusion:*** *Although commonly recommended breastfeeding positions were widely practiced, comprehensive positioning and attachment techniques were not consistently achieved. Structured antenatal and postnatal counseling, practical demonstrations, and routine assessment in clinical settings may improve breastfeeding technique and maternal comfort.*

Keywords: Breastfeeding; Positioning; Attachment; Latch technique; Maternal practices; Exclusive breastfeeding; Nursing education

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Introduction

Breastfeeding is a fundamental component of maternal and child health, contributing to optimal growth, immune protection, and long-term disease prevention. Masi and Stewart highlighted the protective role of breastfeeding in reducing the risk of infectious and chronic diseases (1). Purkiewicz et al. emphasized its multifaceted benefits for maternal well-being and child development (2).

Effective breastfeeding depends on proper positioning and attachment. Nancy et al. defined positioning as the way an infant is held relative to the mother's body, whereas attachment refers to adequate intake of areola and breast tissue during feeding (3). Incorrect positioning can result in nipple trauma, inadequate milk transfer, and early discontinuation of breastfeeding.

Purwaningsih and Istiqomah demonstrated that education on positioning and attachment significantly improves breastfeeding success (4). Ashique et al. also reported improved attachment outcomes following maternal counseling interventions (5).

The World Health Organization recommends exclusive breastfeeding for the first six months, followed by continued breastfeeding with complementary feeding until 2 years of age or beyond (6). Despite these recommendations, many mothers encounter technical challenges during the early postpartum period.

Davra et al. reported variability in positioning and attachment practices among urban mothers (1). Khan et al. identified gaps in proper positioning among both primigravidas and multigravidas (7). These findings suggest the need for structured assessment and education regarding breastfeeding techniques in clinical settings.

Therefore, the present study aimed to assess the different positions and attachment practices adopted by mothers attending a tertiary care hospital in Lahore.

Methodology

A hospital-based descriptive cross-sectional study was conducted to assess breastfeeding positions and attachment practices among mothers attending Ittefaq Hospital, Lahore.

The study was carried out over a period of six months, from January 2025 to June 2025, in the gynecology inpatient ward, including post-delivery mothers, as well as in the Expanded Programme on Immunization (EPI) vaccination clinic and pediatric outpatient department, to capture both early and follow-up breastfeeding practices.

The target population comprised mothers who were currently breastfeeding at the time of data collection. Mothers present in the selected departments during the study period were approached for participation. Mothers who fed exclusively expressed breast milk or formula milk and those whose infants had congenital or medical conditions interfering with normal breastfeeding, such as cleft lip or palate, were excluded. Participation was voluntary, and only mothers who provided informed consent were enrolled.

The sample size was calculated using Slovin's formula ($n = N / 1 + Ne^2$), with a margin of error set at 0.05. Based on the estimated population size, the final sample included 171 participants

. A non-probability convenience sampling technique was used. Eligible mothers were recruited consecutively until the required sample size was achieved.

Data were collected using an adopted structured questionnaire

. The instrument consisted of two sections. The first section included demographic variables such as age, educational status, number of children, and occupation. The second section assessed breastfeeding positioning and attachment practices, including commonly used positions such as cradle hold, cross-cradle hold, football/rugby hold, and side-lying position. It also evaluated key attachment indicators such as ensuring the baby's mouth was wide open before latching, the baby's nose and chin touching the breast, proper alignment with the baby's body facing the mother, switching breasts during feeding, seeking professional assistance, and the experience of discomfort or pain related to positioning. Responses were recorded on a five-point Likert scale ranging from "never" to "always".

Content validity of the questionnaire was ensured through expert review by nursing faculty and subject specialists. Minor modifications were made to improve clarity and contextual relevance. Consistent instructions were provided during administration to maintain uniformity and reduce measurement bias.

Administrative permission was obtained from the principal of Ittefaq College of Nursing and hospital authorities prior to data collection

. The purpose of the study was explained to all eligible mothers, and written informed consent was obtained. Confidentiality and anonymity were maintained by avoiding the collection of identifying information. Participants were informed of their right to withdraw at any time without consequence. For illiterate participants, questions were read aloud in a neutral manner without influencing responses.

Data were coded and entered into the Statistical Package for Social Sciences (SPSS) for analysis. Descriptive statistics were applied. Categorical variables were summarized using frequencies and percentages, and results were presented in tabular form. Breastfeeding positioning and attachment practices were categorized as poor, moderate, or good based on cumulative scoring criteria derived from Likert responses. A p-value of less than 0.05 was considered statistically significant.

Results

The majority of participants were aged 26–35 years (115; 67.3%), followed by 36–45 years (34; 19.9%) and 18–25 years (22; 12.9%). Regarding educational status, 73 (42.7%) had matric/intermediate education, 65 (38.0%) had a B. A degree, and 33 (19.3%) were illiterate. More than half of the mothers had 2–3 children (95; 55.6%), while 49 (28.7%) had one child and 27 (15.8%) had four or more children. Most respondents were housewives (111; 64.9%), whereas 49 (28.7%) were employed and 11 (6.4%) were students (Table 1).

Table 1. Demographic characteristics of participants (n = 171)

Variable	Category	n	%
Age (years)	18–25	22	12.9
	26–35	115	67.3
	36–45	34	19.9
Educational status	Illiterate	33	19.3
	Matric/Inter	73	42.7
	B.A	65	38.0
Number of children	1	49	28.7
	2–3	95	55.6
	≥4	27	15.8
Occupation	Housewife	111	64.9
	Student	11	6.4
	Working	49	28.7

Cradle hold was the most frequently practiced position, with 98 (57.3%) mothers reporting "always," 32 (18.7%) "often," and 22 (12.9%) "sometimes." Cross-cradle hold was less commonly practiced, with 57 (33.3%) reporting "never" and only 33 (19.3%) reporting "always." Football/rugby hold was the least-utilized position, with 123 (71.9%) mothers reporting "never" using it. Side-lying position showed moderate use, with 55 (32.2%) reporting "often" and 50 (29.2%) "sometimes" (Table 2).

Table 2. Breastfeeding positions adopted by mothers (n = 171)

Position	Never n (%)	Rarely n (%)	Sometimes n (%)	Often n (%)	Always n (%)
Cradle hold	9 (5.3)	10 (5.8)	22 (12.9)	32 (18.7)	98 (57.3)
Cross-cradle	57 (33.3)	21 (12.3)	36 (21.1)	24 (14.0)	33 (19.3)
Football/rugby	123 (71.9)	15 (8.8)	22 (12.9)	9 (5.3)	2 (1.2)
Side-lying	43 (25.1)	9 (5.3)	50 (29.2)	55 (32.2)	14 (8.2)

Attachment and Alignment Practices

Regarding attachment indicators, 117 (68.4%) mothers reported always ensuring that the baby's mouth was wide open before latching, while 104 (60.8%) reported always ensuring that the baby's nose and chin touched the breast. Switching breasts during feeding was reported as "always" by 125 (73.1%) mothers. Proper alignment, with the baby's body facing the mother, was always ensured in 119 cases (69.6%).

More than half of the mothers (92; 53.8%) reported never seeking help from healthcare workers regarding breastfeeding positioning. Pain or discomfort related to improper positioning was reported as "sometimes" by 44 (25.7%), "often" by 15 (8.8%), and "always" by 5 (2.9%) (Table 3)

Table 3. Attachment and breastfeeding technique indicators (n = 171)

Practice	Never n (%)	Rarely n (%)	Sometimes n (%)	Often n (%)	Always n (%)
Baby's mouth is wide open	5 (2.9)	5 (2.9)	15 (8.8)	29 (17.0)	117 (68.4)
Nose and chin touching the breast	9 (5.3)	7 (4.1)	13 (7.6)	38 (22.2)	104 (60.8)
Switch breasts during feed	7 (4.1)	2 (1.2)	9 (5.3)	28 (16.4)	125 (73.1)

Baby facing mother	2 (1.2)	2 (1.2)	13 (7.6)	35 (20.5)	119 (69.6)
Seek help from healthcare workers	92 (53.8)	22 (12.9)	20 (11.7)	14 (8.2)	23 (13.5)
Experience pain/discomfort	69 (40.4)	38 (22.2)	44 (25.7)	15 (8.8)	5 (2.9)

Overall, 77 (45.0%) mothers demonstrated poor positioning and attachment practices, 39 (22.8%) demonstrated moderate practices, and 55 (32.2%) demonstrated good practices (Table 4).

Table 4. Overall level of breastfeeding positioning and attachment (n = 171)

Level	n	%
Poor	77	45.0
Moderate	39	22.8
Good	55	32.2

Discussion

The present study assessed breastfeeding positions and attachment practices among mothers attending a tertiary care hospital in Lahore. The findings demonstrate that although commonly recommended positions, such as cradle hold, were widely practiced, overall positioning and attachment quality remained suboptimal, with nearly half of the participants categorized as having poor technique.

The demographic profile showed that most mothers were aged 26–35 years and had at least secondary education. Similar age distributions were reported by Davra et al., who found that the majority of breastfeeding mothers in their urban Indian cohort were in the 21–30-year age group (8). Educational level has been shown to influence breastfeeding practices, and Farooq et al. reported that maternal education significantly affects knowledge of proper positioning and attachment (9).

Cradle hold was the most frequently adopted position in the present study. Davra et al. also identified cradle hold as the predominant technique among lactating mothers (8). While a cradle hold is widely accepted and convenient, an effective latch depends not merely on the choice of position but on correct alignment and attachment. Blair et al. emphasized that modifiable positioning and latching elements are key predictors of effective breastfeeding outcomes (10).

Cross-cradle and football/rugby holds were less commonly practiced. Wang et al., in a meta-analysis, reported that alternative positions, such as the laid-back and football hold, may reduce nipple pain and improve maternal comfort when properly taught (11). The limited use observed in this study may reflect insufficient practical demonstration or a lack of professional counseling.

Side-lying position was moderately practiced, consistent with observations by Nduagubam et al., who noted that mothers often select positions based on comfort and prior guidance (12). This highlights the importance of individualized instruction rather than reliance on a single preferred method.

Attachment indicators showed that a considerable proportion of mothers reported ensuring a wide mouth opening and correct chin-to-breast contact. Nancy et al. reported similar findings but also emphasized that self-reported technique may overestimate actual effectiveness when not objectively observed (3). Khan et al. similarly identified gaps between reported and observed attachment practices in clinical assessments (7).

Switching breasts during feeding and ensuring the baby's body faced the mother were frequently practiced in this study. Purwaningsih and Istiqomah demonstrated that structured education significantly improves correct alignment and attachment behaviors (13). Despite favorable responses to individual items, overall classification revealed that 45% of mothers had poor positioning and attachment practices, suggesting that correct technique requires consistent integration of multiple components rather than isolated behaviors.

More than half of the mothers reported never seeking help from healthcare professionals regarding breastfeeding positions. Chaudry et al. showed that structured continuum-of-care interventions significantly improve exclusive breastfeeding outcomes in Pakistan (14). Limited professional engagement may contribute to inadequate technique and persistent discomfort.

A subset of participants reported maternal discomfort related to improper positioning. Alazmi and Algabbani found a significant association between breastfeeding posture and musculoskeletal pain among lactating mothers (15). This finding underscores the clinical importance of correct positioning not only for infant nutrition but also for maternal physical well-being.

Overall, although common breastfeeding positions were widely practiced, comprehensive positioning and attachment skills were not consistently achieved. The findings indicate a need for structured antenatal and postnatal counseling, hands-on demonstration sessions, and active follow-up by healthcare providers. Incorporating standardized breastfeeding assessment tools in clinical settings may improve technique, reduce maternal discomfort, and enhance exclusive breastfeeding outcomes.

Conclusion

Breastfeeding practices in this cohort reflected familiarity with common positions but incomplete integration of correct attachment and alignment principles. Nearly half of the mothers demonstrated inadequate overall technique. Structured counseling, supervised practice, and systematic assessment within hospital settings may improve breastfeeding quality and maternal–infant outcomes.

Declarations

Data Availability statement
All data generated or analysed during the study are included in the manuscript.

Ethics approval and consent to participate
Approved by the department concerned. (IRBEC-IFCN-023/25)

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The authors declared no conflict of interest.

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Manuscript drafting, Study Design,
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All authors reviewed the results and approved the final version of the manuscript. They are also accountable for the study's integrity.

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