Social Norms and Breastfeeding Practice among Post-Caesarean Women in East Java, Indonesia

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Abstract: Background: Breastfeeding after caesarean section is often delayed due to post-operative pain, limited mobility, and reduced mother infant contact. In addition to clinical factors, social norms especially support from husbands, family members, and healthcare providers can influence breastfeeding practices. This study examined the association between social norms and breastfeeding practices during the first three postpartum days among post-caesarean mothers in East Java, Indonesia. **Methods:** a cross-sectional observational study was conducted from July to October 2024 at a hospital in East Java. a total of 296 post-caesarean mothers were selected using simple random sampling. Data were collected through structured interviews and medical record reviews. Social norms were assessed using a Subjective Norm Scale adapted from the Theory of Planned Behavior, measuring perceived support from husbands, family members, and healthcare providers. Breastfeeding practices were evaluated daily from day 1 to day 3 postpartum using a composite Breastfeeding Practice Index based on WHO indicators. Descriptive statistics summarized participant characteristics. associations were analyzed using Chi-square tests, while changes across postpartum days were assessed using Cochran's Q test, Friedman test, and post-hoc analyses. **Results:** high support was reported from husbands (68.2%), family members (62.8%), and healthcare providers (72.3%), while 66.9% of mothers had positive subjective norms. breastfeeding practices improved significantly from day 1 to day 3, with good practices increasing from 60.1% to 64.9% (Friedman test, $p = 0.001$). all individual breastfeeding indicators improved significantly (Cochran's Q test, $p < 0.05$). social norms were significantly associated with breastfeeding practices; mothers receiving high support from husbands, family, and healthcare providers were more likely to practice good breastfeeding ($p < 0.01$). subjective norm scores were highest among mothers with good breastfeeding practices ($p < 0.001$).**conclusion:** early breastfeeding practices among post-caesarean mothers improve over time and are strongly influenced by social norms. strengthening support from husbands, family, and healthcare providers is essential to promote optimal breastfeeding after caesarean delivery.

keywords: Social norms; Breastfeeding practice; Post-caesarean; Husband support; Family support; Healthcare provider support; Subjective norms; Early postpartum period

Introduction

Exclusive breastfeeding for the first six months of life is a cornerstone of maternal and child health, providing optimal nutrition, enhancing immune protection, and substantially reducing infant morbidity and mortality. the World Health Organization (WHO) endorses exclusive breastfeeding as a highly cost-effective public health intervention, particularly in low- and middle-income countries, where it contributes significantly to child survival and long-term health outcomes [1]. despite these benefits, global adherence to exclusive breastfeeding remains suboptimal, with marked disparities across regions, socioeconomic groups, and modes of delivery. concurrently, caesarean section (CS) rates have risen sharply worldwide. in 2018, the global CS rate reached 21.1% and is projected to approach 30% by 2030 [2,3]. in Indonesia, national data from the Indonesia Basic Health Research Survey 2021 indicate that 17.6% of all births were delivered by CS, exceeding the WHO recommended range [4].provincial data from East Java in 2024 report an even higher prevalence, with caesarean deliveries accounting for approximately 22.3% of all births [5].this increasing trend highlights the need to address post-caesarean maternal health and breastfeeding challenges.

evidence shows that caesarean delivery is associated with delayed initiation of breastfeeding, reduced early mother–infant contact, postoperative pain, and physical limitations that interfere with effective breastfeeding positioning and frequency [6-8]. these clinical barriers can compromise maternal confidence, increase perceptions of insufficient milk supply, and reduce the likelihood of exclusive breastfeeding, particularly during the early postpartum period. breastfeeding practices are shaped not only by biological and clinical factors but also by broader social determinants, including cultural beliefs, family dynamics, and community expectations. social norms defined as shared beliefs about what behaviors are commonly practiced (descriptive norms) and socially approved (injunctive norms) within a group have been recognized as powerful drivers of health-related behaviors [9,10]. in the context of infant feeding, social norms influence mothers' perceptions of the acceptability and feasibility of exclusive breastfeeding, especially during the vulnerable early postpartum days.

international studies from sub-Saharan Africa, South Asia, and the Middle East show that mothers' perceptions of community behaviors and social expectations are strong predictors of exclusive breastfeeding, independent of maternal knowledge, education, or socioeconomic status [10-13]. norms that normalize early supplementation, formula feeding, or beliefs that breast milk alone is insufficient are consistently associated with early cessation of exclusive breastfeeding [11.13]. the interaction between post-caesarean clinical challenges and social normative influences is particularly salient in collectivist societies, where postpartum women are strongly influenced by husbands, elders, and extended family members.

Indonesia, including East Java Province, is characterized by strong family involvement in maternal decision-making during the postpartum period. while previous studies in Indonesia have predominantly focused on individual determinants such as maternal education, employment status, and knowledge, empirical evidence examining social

norms as a determinant of breastfeeding among post-caesarean women remains limited. Furthermore, evidence on how social norms influence breastfeeding practices during the first three postpartum days after caesarean delivery is scarce, despite this period being critical for establishing breastfeeding.

Therefore, this study aimed to examine the association between social norms and breastfeeding practices during the first three postpartum days among post-caesarean mothers in East Java, Indonesia.

Materials and Methods

Study Design and Setting

This study employed a cross-sectional observational design. the study was conducted at a hospital in East Java, Indonesia. the hospital was purposively selected because it serves as a secondary referral and educational center, provides comprehensive maternal and neonatal services, implements standardized clinical protocols, and has a high patient turnover. This study received ethical approval from the Institutional Ethics Committee (Approval No. 0623265/EC/KEPK/I/04/2024), granted on 25 April 2024.

Population, Sample and Sampling Technique

The study population consisted of all post-caesarean mothers who delivered at hospital in East Java, Indonesia, during July–October 2024, with a total population of 865 eligible mothers.

inclusion criteria were postpartum mothers aged ≥20 years who had undergone a caesarean section, were married and living with their husbands, and provided informed consent to participate in the study.

exclusion criteria included mothers with serious postoperative complications (e.g., infection, hemorrhage requiring intensive care), mothers whose newborns were admitted to the Neonatal Intensive Care Unit (NICU) for more than 24 hours, and mothers unable to participate due to cognitive or communication barriers.

The sample size was calculated using the single proportion formula with 95% confidence, conservative estimate = 0.5, and margin of error = 0.05. After accounting for a 10% non-response rate, the final sample size was 296 participants. Participants were selected using simple random sampling from hospital delivery records, ensuring equal probability of selection and representativeness.

Data Collection

Data were collected using a structured questionnaire and medical record review. Face-to-face interviews were conducted with post-caesarean mothers in the postpartum ward by trained research assistants after obtaining informed consent. Prior to data collection, participants were informed about the study objectives and assured of anonymity and confidentiality. Each interview took approximately 20 minutes and was conducted in a private setting to ensure participants' comfort. Relevant clinical information, including caesarean procedure details and maternal and neonatal

outcomes, was obtained from medical records. all completed questionnaires were checked daily for completeness and consistency before data entry and analysis.

Study Instruments

Data were collected using a structured questionnaire and medical record review. the questionnaire included sociodemographic characteristics(included maternal age, duration of marriage, education levels, employment status, household income category, place of residence, and health insurance coverage), obstetric characteristics (included parity, history of caesarean section, indication for the current caesarean delivery, type of caesarean section, gestational age at delivery, and the presence of postpartum complications), and factors related to breastfeeding practices (include early skin-to-skin contact, breastfeeding counseling, rooming-in practice, postoperative pain, and previous breastfeeding experience). Medical records were reviewed to obtain information on the caesarean procedure, maternal and neonatal outcomes, and postpartum complications. Trained research assistants conducted facetoface interviews with participants in the postpartum ward, ensuring privacy and adherence to ethical standards. Data collection was carried out over the study period from July–October 2024, and all completed questionnaires were checked daily for completeness and consistency.

social norms were assessed using a Subjective Norm Scale adapted from the Theory of Planned Behavior. social norms included perceived social pressure and expectations from significant others, particularly husbands, family members, and healthcare providers, regarding exclusive breastfeeding among post-caesarean mothers. The instrument measured both injunctive and descriptive norms using a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). the scale demonstrated acceptable internal consistency (Cronbach's alpha ≥0.70) and has been widely used in breastfeeding behavior research[14,15].

breastfeeding practices were assessed using a structured questionnaire adapted from the WHO Infant and Young Child Feeding (IYCF) indicators, included early initiation of breastfeeding within one hour after delivery, provision of colostrum, exclusive breastfeeding, avoidance of prelacteal feeding, and appropriate breastfeeding frequency. Each appropriate practice was scored as 1 and inappropriate practice as 0, yielding a composite Breastfeeding Practice Index with a total score ranging from 0 to 5, where higher scores indicate better breastfeeding practices. the instrument demonstrated good content validity based on WHO guidelines, and internal consistency reliability was acceptable (Cronbach's alpha = 0.78) [16,17].

Data Analysis

Data were entered, cleaned, and analyzed using SPSS software. Descriptive statistics were used to summarize participants' sociodemographic characteristics, obstetric characteristics, social norms, and breastfeeding practices. Continuous variables were

presented as means and standard deviations (SD), while categorical variables were summarized as frequencies and percentages.

Bivariate analyses were conducted to examine associations between social norms, breastfeeding-related factors, and breastfeeding practices among post-caesarean mothers. The Chi-square test was applied for categorical variables, while independent t-tests or Mann–Whitney U tests were used for continuous variables, as appropriate. Differences in breastfeeding practices across postpartum days were analyzed using Cochran's Q test for repeated categorical measures, followed by Friedman and post-hoc analyses for the composite breastfeeding practice index. A p-value <0.05 was considered statistically significant.

Result

Sociodemographic Characteristics

a total of 296 post-caesarean mothers participated in the study. the mean age of participants was 27.4 ± 5.6 years, and the average duration of marriage was 5.8 ± 4.1 years. Regarding educational attainment, 67.9% of mothers had completed secondary education, 22.0% had primary education, and 10.1% had higher education. most mothers were not formally employed (74.7%), while 25.3% were employed. among employed mothers, 55.1% reported household incomes below the regional minimum wage, whereas 44.9% earned above it. in terms of residence, 66.9% of participants lived in urban or semi-urban areas, and 33.1% resided in rural areas. the majority of mothers were covered by health insurance (90.5%) (Table 1).

Obstetric Characteristics

Among the 296 post-caesarean mothers, the mean gestational age at delivery was 38.5 ± 1.6 weeks. most participants were multiparous (64.9%), followed by primiparous (31.1%) and grande multiparous mothers (4.1%). a history of previous caesarean section was reported by 33.1% of mothers, while the remainder were undergoing their first caesarean delivery. the main indications for the current caesarean section included previous caesarean section (33.1%), fetal distress (25.0%), malpresentation (14.9%), maternal request (10.1%), and other indications (16.9%). emergency caesarean sections accounted for 62.2% of deliveries, while 37.8% were elective procedures (Table 2).

Factors Related to Breastfeeding Practices

Among the 296 post-caesarean mothers, 60.1% reported receiving early skin-to-skin contact, while the remainder did not, mainly due to maternal recovery conditions or neonatal observation requirements. Breastfeeding counseling during hospitalization was received by 71.6% of mothers, whereas 28.4% did not receive counseling. Rooming-in practice was implemented in 52.0% of cases, while the remaining mothers experienced temporary mother–infant separation related to postoperative care or hospital policies. in addition, 66.9% of mothers had previous breastfeeding experience, while 33.1% were breastfeeding for the first time (Table 3).bivariate analysis

demonstrated that early skin-to-skin contact, receipt of breastfeeding counseling during hospitalization, rooming-in practice, lower post-operative pain levels, and previous breastfeeding experience were significantly associated with good breastfeeding practices among post-caesarean mothers ($p < 0.05$). These findings suggest that both clinical carerelated practices and maternal experience are associated with better breastfeeding practices during the early postpartum period, based on bivariate analysis (Table 7).

Social Norms

Among the 296 post-caesarean mothers, 68.2% reported high perceived support from their husbands. High family support was reported by 62.8% of mothers. Support from healthcare providers was perceived as high by 72.3% of participants. Based on the composite subjective norm score, 66.9% of mothers had a positive perception of social expectations regarding breastfeeding, while 33.1% had a negative perception (Table 4).

Breastfeeding Practices

Breastfeeding practices are divided into days 1, 2 and 3.breastfeeding practices were assessed across the first three postpartum days. on day 1, 58.1% of early initiation of breastfeeding within the first hour, 80.4% provided colostrum, 59.5% practiced exclusive breastfeeding, 71.6% avoided prelacteal feeding, and 52.0% breastfed at least eight times per day. based on the Composite Breastfeeding Practice Index, 60.1% of mothers demonstrated good practices, 28.4% moderate practices, and 11.5% poor practices on day 2, early initiation increased to 66.9%, exclusive breastfeeding to 64.9%, colostrum feeding to 81.8%, avoidance of prelacteal feeding to 73.6%, and breastfeeding frequency ≥8 times per day to 56.1%. The proportion of mothers with good composite practices increased to 62.8%.on day 3, further improvements were observed, with early initiation at 71.6%, exclusive breastfeeding at 66.9%, colostrum feeding at 83.1%, avoidance of prelacteal feeding at 75.7%, and breastfeeding frequency ≥8 times per day at 59.5%. The proportion of mothers with good composite breastfeeding practices increased to 64.9%.significant differences were observed in all breastfeeding practice indicators across the three postpartum days (Cochran's Q test, $p < 0.05$). the composite breastfeeding practice index also showed a significant improvement from day 1 to day 3 postpartum (Friedman test, $p = 0.001$) (Table 5).post-hoc analysis demonstrated significant improvements in the composite breastfeeding practice index between day 1 and day 2 ($p = 0.002$), day 2 and day 3 ($p = 0.014$), and day 1 and day 3 postpartum ($p < 0.001$) (Table 6).

Social Norms and Breastfeeding Practices

Social norms were significantly associated with breastfeeding practices among post-caesarean mothers. good breastfeeding practices were observed in 75.6% of mothers reporting high husband support, compared to 56.5% and 43.8% among those with moderate and low support, respectively ($p = 0.003$). similarly, good practices were more

common among mothers with high family support (72.7%) compared to those with moderate (55.9%) and low support (50.0%) (p = 0.006).support from healthcare providers was also significantly associated with breastfeeding practices, with 76.8% of mothers reporting high provider support demonstrating good practices, compared to 56.7% and 48.9% among moderate and low support groups, respectively (p = 0.002).the mean subjective norm score differed significantly across breastfeeding practice categories, with the highest score observed among mothers with good practices (4.2 ± 0.6), followed by moderate (3.5 ± 0.7) and poor practices (3.1 ± 0.9) (p < 0.001) (Table 8)

Discussion

Social Norm

The high proportion of post-cesarean mothers reporting strong social support in this study highlights the important role of social norms in shaping breastfeeding behavior. high levels of perceived support from their husbands emphasize the importance of partner involvement in enhancing mothers' confidence and commitment to breastfeeding, particularly during postoperative recovery. recent evidence suggests that partner support is a key determinant of breastfeeding self-efficacy and exclusive breastfeeding, particularly among mothers facing physical and emotional challenges after a cesarean delivery [14,15].

Perceived family support underscores the role of relatives in providing emotional reassurance and practical assistance during the postpartum period. family involvement has consistently been associated with improved breastfeeding outcomes by reducing maternal stress and facilitating adaptation to postpartum demands [15-18]. these findings reinforce the notion that breastfeeding is not solely an individual behavior but is embedded within a broader social and cultural context.

Support from healthcare providers, highlighting the importance of professional guidance in promoting breastfeeding practices. previous studies have demonstrated that counseling, encouragement, and hands-on support from healthcare workers significantly improve breastfeeding initiation and continuation, particularly among post-caesarean mothers who may experience delayed lactogenesis and limited mobility [19-22].

The positive subjective norms toward breastfeeding suggest that prevailing social expectations favor breastfeeding within the study setting. according the Theory of Planned Behavior, positive subjective norms strengthen behavioral intentions and increase the likelihood of adopting recommended health behaviors, including optimal breastfeeding practices [23,24]. collectively, these findings indicate that strengthening social support systems and reinforcing positive social norms should be integral components of breastfeeding promotion strategies for post-caesarean mothers.

Breastfeeding Practices

This study shows a progressive improvement in breastfeeding practices among post-caesarean mothers during the first three days postpartum. on day 1, early initiation and

exclusive breastfeeding were observed but remained influenced by postoperative challenges. consistent with global evidence, caesarean delivery is associated with delayed breastfeeding initiation and lower exclusivity in the immediate postpartum period compared to vaginal birth, largely due to postoperative pain, delayed skin-to-skin contact, and limited maternal mobility [25-26].

The improvements observed on day 2 and day 3, reflected by more favorable breastfeeding practices across key indicators; suggest that maternal recovery, enhanced breastfeeding support, and family involvement play important roles in facilitating better breastfeeding performance. as mothers regain physical comfort and confidence, their capacity to initiate and maintain breastfeeding improves. these results align with WHO recommendations that emphasize the importance of early and sustained support for breastfeeding initiation, including the promotion of skin-to-skin contact, counseling, and immediate assistance with positioning and technique, which have been shown to strengthen both early initiation and exclusivity rates [27].

Our findings are supported by epidemiological evidence indicating that the adverse effects of caesarean delivery on breastfeeding initiation are most prominent shortly after birth but diminishes over time as maternal recovery and supportive interventions take place. caesarean delivery has been identified as a predictor of delayed early initiation of breastfeeding, whereas structured postnatal care and implementation of the Baby-Friendly Hospital Initiative have been associated with improved breastfeeding outcomes [28-30].

The subsequent improvement in exclusive breastfeeding underscores the adaptive capacity of post-caesarean mothers, facilitated by improved pain management, increased maternal–infant contact, and ongoing reinforcement from healthcare providers and family members. similar patterns have been reported in previous studies, where early barriers related to surgical delivery gradually subside with time and support, leading to improved breastfeeding practices [31-32].

collectively, these findings emphasize the importance of longitudinal monitoring of breastfeeding practices in the early postnatal period. clinically, they highlight the need for sustained lactation support following caesarean delivery, beginning immediately after birth and continuing through the early postpartum phase, to optimize breastfeeding initiation and exclusivity [33-34].

Social Norms and Breastfeeding Practices

This study demonstrates that breastfeeding practices among post-caesarean mothers are strongly associated with social norms, particularly support from husbands and family members. consistent with the Theory of Planned Behavior, perceived approval and expectations from significant others play a critical role in shaping breastfeeding behavior beyond individual knowledge or intention [35-36]. in the post-caesarean context, husbands provide essential emotional, practical, and decision-making support that helps mothers overcome postoperative challenges, while family members influence breastfeeding practices through shared beliefs, traditions, and daily caregiving support

[37-41].similarly, strong family support was associated with more favorable breastfeeding practices. mothers who perceived higher levels of family support were more likely to adopt optimal breastfeeding behaviors, consistent with previous evidence highlighting the influence of family members—particularly older female relativeson infant feeding decisions through shared beliefs, cultural norms, and caregiving roles [40-41]. in supportive family contexts, breastfeeding tends to be socially reinforced, while practices such as prelacteal feeding or early formula use are less encouraged, thereby facilitating exclusive breastfeeding even following caesarean delivery [42-43].
Support from healthcare providers demonstrated the strongest association with good breastfeeding practices in this study, with more than three-quarters of mothers receiving high provider support achieving optimal breastfeeding behaviors. this finding corroborates existing evidence that professional counseling, hands-on assistance, and reassurance from trained health personnel are critical determinants of successful breastfeeding initiation and continuation, especially among post-caesarean mothers who face unique physical and psychological barriers [44-45]. Consistent guidance on positioning, latch techniques, pain management, and milk adequacy may enhance maternal self-efficacy and reinforce breastfeeding as an expected and achievable behavior despite surgical birth.
differences in subjective norm scores underscore the importance of perceived social approval in shaping breastfeeding practices, with stronger normative support associated with better breastfeeding outcomes [46-47]. among post-caesarean mothers, breastfeeding behavior is influenced not only by biomedical factors but also by social norms and gendered power relations that shape women's health decisions within family and cultural contexts [48].similarly, in east java, breastfeeding decisions among post-caesarean mothers are strongly shaped by family norms and spousal authority, highlighting breastfeeding as a socially negotiated practice that requires gender- and family-sensitive interventions. Overall, these findings underscore the importance of breastfeeding strategies that move beyond individual education by actively engaging husbands, families, and healthcare providers to strengthen supportive social norms and promote sustained exclusive breastfeeding following caesarean delivery.

Limitations

The cross-sectional design of this study limits causal inference between social norms and breastfeeding practices. Data were self-reported, which may introduce recall and social desirability bias. Additionally, the study was conducted in East Java, Indonesia, potentially limiting generalizability to other cultural settings. The analysis focused on support from husbands, family members, and healthcare providers, while other social influences were not examined. Finally, longer-term breastfeeding outcomes were not assessed; warranting future longitudinal studies to better understand the sustained impact of social norms on breastfeeding practices among post-caesarean women.

Conclusions

This study confirms that social norms are significantly associated with breastfeeding practices among post-caesarean mothers in East Java, Indonesia. support from husbands, family members, and healthcare providers particularly professional supportplays a key role in facilitating optimal breastfeeding practices. these findings underscore that breastfeeding is a socially negotiated behavior shaped by subjective norms rather than solely by individual knowledge or intention, breastfeeding promotion efforts should therefore adopt socially inclusive strategies that engage families and strengthen healthcare provider support. future research employing longitudinal and mixed-methods designs is needed to examine causal pathways, explore changes in social norms over time, and assess the long-term impact of social support on sustained exclusive breastfeeding among post-caesarean women.

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socio-demographic characteristics (N=298)		
variables		**mean±SD / n (%)**
maternal age (years)		27.4±5.6
duration of marriage (years)		5.8±4.1
education levels	primary education	65 (22.0)
	secondary education	201 (67.9)
	higher education	30 (10.1)
employed status	employed	75 (25.3)
	not employed	221 (74.7)
household income category	< regional minimum wage	163 (55.1)
	≥regional minimum wage	133 (44.9)
place of residence	urban/semi-urban	198 (66.9)
	rural	98 (33.1)
health insurance coverage	yes	268 (90.5)
	no	28 (9.5)

Table 1.socio-demographic characteristics of post-caesarean mothers

obstetric characteristics (N=296)		
variables		**mean±SD / n (%)**
gestational age at delivery (weeks)		38.5±1.6
parity	primiparous	92 (31.1)
	multiparous	192 (64.9)
	grande multiparous	12 (4.1)
history of previous cs	yes	98 (33.1)
	no	198 (66.9)
indication for current cs	previous cs	98 (33.1)
	fetal distress	74 (25.0)
	malpresentation	44 (14.9)
	maternal request	30 (10.1)
	other causes	50 (16.9)
type of cs	elective	112 (37.8)
	emergency	184 (62.2)

Table2.obstetric characteristics of post-caesarean mothers

factors related to breastfeeding practices (n=296)		
variables		n (%)
early skin to skin contact	yes	178 (60.1)
	no	118 (39.9)
breastfeeding counseling during hospitalization	yes	212 (71.6)
	no	84 (28.4)
rooming-in practice	yes	154 (52.0)
	no	142 (48.0)
previous breastfeeding experience	yes	198 (66.9)
	no	98 (33.1)

Table3. Factors related to breastfeeding practices

social norms related to breastfeeding (N=296)		
variables		n (%)
perceived support from husband	low	20 (6.8)
	moderate	74 (25.0)
	high	202 (68.2)
perceived support from family members	low	28 (9.5)
	moderate	82 (27.2)
	high	186 (62.8)
perceived support from healthcare providers	low	16 (5.4)
	moderate	66 (22.3)
	high	214 (72.3)
overall subjective norm (composite)	negative (< median score)	98 (33.1)
	positive (≥ median score)	198 (66.9)

Table4. Social Norms Related to Breastfeeding

breastfeeding practices among post-caesarean mothers (n=296)					
variables		**day 1 n(%)**	**day 2 n(%)**	**day 3 n(%)**	**p-value**
early initiation of breastfeeding (within 1 hour)	yes	172 (58.1)	198 (66.9)	212 (71.6)	<0.001*
	no	124 (41.9)	98 (33.1)	84 (28.4)	
colostrum feeding	yes	238 (80.4)	242 (81.8)	246 (82.1)	0.041*
	no	58 (19.6)	54 (18.2)	50 (16.9)	
exclusive breastfeeding during hospitalization	yes	176 (59.5)	192 (64.9)	198 (66.9)	0.002*
	no	120 (40.5)	104 (35.1)	98 (33.1)	
avoidance of prelacteal feeding	yes	212 (71.6)	218 (73.6)	224 (75.7)	0.018*
	no	84 (28.4)	78 (26.4)	72 (24.3)	
breastfeeding frequency (≥8 times/day)	yes	154 (52.0)	166 (56.1)	176 (59.5)	<0.001*
	no	142 (48.0)	130 (43.9)	120 (40.5)	
composite breastfeeding practice index	good	178 (60.1)	186 (62.8)	192 (64.9)	**0.001
	moderate	84 (28.4)	86 (29.1)	84 (28.4)	
	poor	34 (11.5)	24 (8.1)	20 (6.8)	

*cochran's Q test, significant 0.05
**friedman test, significant 0.05

Table5. Breastfeeding Practices Among Post-Caesarean Mothers

pairwise Comparison	Z value	p-value*
day 1 vs. Day 2	-3.12	0.002
day 2 vs. Day 3	-2.45	0.014
day 1 vs. Day 3	-4.08	<0.001

*wilcoxon signed-rank test, significant 0.05

Data are presented as p-values. Post-hoc pairwise comparisons were performed using the Wilcoxon signed-rank test following a statistically significant Friedman test. the composite breastfeeding practice index was categorized as good (score 4–5), moderate (score 2–3), and poor (score 0–1). A p-value <0.05 was considered statistically significant.

Table6. Post-hoc Pairwise Comparison of Composite Breastfeeding Practice Index by Postpartum Day

factor related to breastfeeding	breastfeeding practices			p-value
	good	moderate	poor	
early skin-to-skin contact	132 (74.2)	38 (21.4)	8 (4.4)	<0.001
breastfeeding counseling	148 (69.8)	50 (23.6)	14 (6.6)	0.002
rooming-in practice	108 (70.1)	38 (24.7)	8 (5.2)	0.001
previous breastfeeding experience	136 (68.7)	48 (24.2)	14 (7.1)	0.004

*chi-square test, significant 0.05

Table7. Bivariate Analysis of Factor Related to Breastfeeding and Breastfeeding Practices (N = 296)

social norm variables		breastfeeding practices			p-value
		good	moderate	poor	
husband support	high	140 (69.3)	38 (18.8)	24 (11.9)	0.002*
	moderate	42 (56.8)	24 (32.4)	8 (10.8)	
	low	8 (40.0)	8 (40.0)	4 (20.0)	
family support	high	132 (71.0)	34 (18.3)	20 (10.7)	0.004*
	moderate	46 (56.1)	26 (31.7)	10 (12.2)	
	low	12 (42.9)	10 (35.7)	6 (21.4)	
healthcare provider support	high	144 (67.3)	54 (25.2)	16 (7.5)	0.001*
	moderate	36 (54.5)	18 (27.3)	12 (18.2)	
	low	6 (37.5)	6 (37.5)	4 (25.0)	
subjective norm score (mean±sd)		4.2±0.6	3.5±0.7	3.1±0.9	<0.001**

*chi-square test, significant 0.05
**kruskal-Wallis test, significant 0.05

Table8. Bivariate Analysis of Social Norms and Breastfeeding Practices (N = 296)

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