

Knowledge, Practice and Socio-Cultural Factors Influencing Exclusive Breastfeeding among Mothers in Usugbenu Community, Irrua, Edo State, Nigeria

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ABSTRACT

Exclusive breastfeeding (EBF) for the first six months is one of the most effective interventions for infant survival, yet EBF rates in Nigeria remain below recommended levels, and evidence from rural communities in Edo State is limited. This study assessed maternal knowledge and practice of EBF, the perceived socio-cultural factors influencing it, and the factors associated with knowledge and practice among mothers in Usugbenu Community, Irrua, Edo State. A community-based cross-sectional survey was conducted among 390 mothers of children aged 0–24 months selected by multistage sampling (response rate 98.2%). Data were collected with an interviewer-administered structured questionnaire and analyzed with descriptive statistics, Chi-square tests and multivariable logistic regression in SPSS version 27. Overall, 32.0% of mothers had good knowledge of EBF, 47.0% moderate and 21.0% poor knowledge. The weakest knowledge item concerned the effect of giving water before six months (59.0% correct). Only 56.4% reported exclusively breastfeeding for six months; 32.1% gave liquids other than breast milk, 25.6% gave water and 20.5% introduced complementary foods before six months, although 77.0% had a high overall practice score. Socio-cultural factors were strongly endorsed (grand mean 3.7 of 4), led by family encouragement, traditional beliefs, financial constraints and religious leaders. High practice rose from 46.3% among mothers with poor knowledge to 91.2% among those with good knowledge ($\chi^2 = 59.16$, $df = 2$, $p < .001$). Tertiary education, antenatal care attendance, receiving EBF information during antenatal care and health workers as the main information source independently predicted both good knowledge and high practice. Maternal knowledge of EBF in this community is moderate and uneven, and it is closely tied to practice. Antenatal counselling that targets water-giving and involves families and religious leaders is likely to strengthen EBF.

Keywords: Exclusive breastfeeding, Maternal knowledge, Socio-cultural factors, Antenatal care, Rural community, Nigeria



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INTRODUCTION

Exclusive breastfeeding (EBF), feeding an infant only breast milk for the first six months of life without water, other liquids or solid foods except prescribed medicines, vitamins or mineral supplements, is one of the most

effective and cost-efficient interventions for infant growth, development and survival (Hasan et al., 2021; Sabo et al., 2023). The World Health Organization recommends EBF for six months, followed by continued breastfeeding with

appropriate complementary feeding up to two years and beyond (WHO, 2023). EBF protects infants against diarrhea, respiratory infections and malnutrition and benefits mothers through improved postpartum recovery (Gebeyehu et al., 2023). Despite sustained promotion, EBF rates remain below recommended levels in many developing countries, including Nigeria (Sultana et al., 2022; Awoke & Mulatu, 2021; Mohammed et al., 2023). In Edo State, Atimatia and Adam (2020) reported an EBF prevalence of only 36.6%.

Knowledge of Exclusive Breastfeeding

Studies across Africa and Asia show that most mothers have heard of EBF, but their understanding is often incomplete. A meta-analysis of Ethiopian studies found that about three-quarters of women had good knowledge of EBF, yet far fewer put it into practice (Gebeyehu et al., 2023). Similarly favorable knowledge was reported among mothers in Kigali, Rwanda, who understood early initiation and the value of colostrum (Luo et al., 2021), and in Gwagwalada, Abuja, where 70% had adequate knowledge (Okoroiwu et al., 2021). Other studies found important gaps. In Noakhali, Bangladesh, almost a third of mothers could not correctly define EBF (Sultana et al., 2022), and in Poland generally good knowledge existed alongside persistent myths about breastfeeding (Karcz et al., 2021). Knowledge matters because it shapes behavior: mothers with good knowledge were more likely to breastfeed exclusively in Bangladesh, Nigeria and Ethiopia (Hasan et al., 2021; Sabo et al., 2023; Gebretsadik et al., 2022). Maternal education and access to breastfeeding information were the factors most often linked to better knowledge (Ali et al., 2023; Gebretsadik et al., 2022).

Practice of Exclusive Breastfeeding

Good knowledge does not always translate into practice, and EBF rates vary widely between settings. Relatively high rates, around seven in ten mothers, were reported in Horro District, Ethiopia (Jebena & Tenagashaw, 2022) and Kigali, Rwanda (Luo et al., 2021). Rates were lower in Mekelle and the Somali Region of Ethiopia, Abuja and Indonesia, where only about half of mothers breastfed exclusively (Gebretsadik et al., 2022; Shitie et al., 2022; Okoroiwu et al., 2021; Gayatri, 2021). The lowest rates came from rural Indonesia and Jigawa State, Nigeria, where fewer than a third of mothers Practiced EBF (Agrina et al., 2021; Sabo et al., 2023). Across these studies, antenatal care attendance, receiving breastfeeding information during pregnancy, early initiation and maternal education Favored EBF, whereas maternal employment worked against it (Jebena & Tenagashaw, 2022; Shitie et al., 2022; Gayatri, 2021; Wallenborn et al., 2021). Trials in rural Ethiopia confirmed that structured breastfeeding education during pregnancy and after birth improves EBF (Abdulahi et al., 2021; Admasu et al., 2022).

Socio-Cultural Factors Influencing Exclusive Breastfeeding

Beyond knowledge, infant feeding decisions are shaped by family, culture, religion and economic circumstances. Pre-lacteal feeds such as honey or water, low household income and maternal employment have been linked to non-exclusive breastfeeding in Indonesia (Rahadian & Astuti, 2023), while mothers in Mexico who believed their milk was insufficient were much less likely to breastfeed exclusively (Bueno-Gutiérrez et al., 2025). In Niger, no mother in one study breastfed exclusively for six months, as early feeding was common and decisions were made largely by female relatives rather than health workers (Kapran, 2023). Studies in Benin, South Africa and Indonesia similarly described food taboos, beliefs that breast milk is not enough, and pressure from family and community to give water or food early (Lokossou et al., 2021; Modjadji et al., 2023; Meher & Zaluchu, 2024). These influences are not only negative. Family and community support and spiritual beliefs helped mothers continue breastfeeding in rural Pakistan (Hirani et al., 2023), and mothers' intention and confidence to breastfeed predicted success in Spain (Gutierrez-de-Terán-Moreno et al., 2022).

Most Nigerian studies have been conducted in urban or peri-urban settings such as Abuja and Jigawa State (Okoroiwu et al., 2021; Sabo et al., 2023), and evidence from rural Edo State is limited (Oyelana et al., 2021). Usugbenu Community in Irrua is a predominantly Esan, agrarian community in which traditional leadership, extended family structures and religious institutions remain influential. This study therefore assessed mothers' knowledge and practice of EBF and the perceived socio-cultural factors influencing it in Usugbenu Community, Irrua, Edo State. It also examined the relationship between knowledge and practice and the socio-demographic factors associated with each.

METHODS

Study Design

A community-based descriptive cross-sectional survey design was used to assess maternal knowledge, practice and perceived socio-cultural factors influencing EBF, and to test the relationships between these variables and mothers' socio-demographic characteristics.

Setting

The study was conducted in Usugbenu Community, a rural settlement in Irrua, Esan Central Local Government Area, Edo State, south-south Nigeria (approximately 6.74° N, 6.22° E). The community has an estimated 3,500–5,000 residents in about 700–1,000 households and is predominantly of Esan ethnicity. Farming (yam, cassava, maize), small-scale trading and artisanal work are the

main livelihoods. Christianity, traditional religion and Islam are practiced, and chiefs, elders and compound heads remain influential in family decisions. A government primary health center provides antenatal care, immunization and growth monitoring, supported by traditional birth attendants and community health volunteers. Irrua Specialist Teaching Hospital lies about 8–12 km away.

Population and Sample

The study population was mothers aged 15–49 years resident in Usugbenu who had a child aged 0–24 months and were primarily responsible for infant feeding. Mothers who were critically ill, had permanently relocated or were not responsible for infant feeding were excluded. The sample size was calculated with Cochran's formula for a single proportion, using the EBF prevalence of 36.6% reported in Edo State by Atimatia and Adam (2020), a 95% confidence level and a 5% margin of error:

$$n = \frac{Z^2 pq}{d^2} = \frac{1.96^2 \times 0.366 \times 0.634}{0.05^2} \approx 357$$

Adjusting for a 10% non-response rate ($357 \div 0.90$) gave a final sample of 397 mothers. A multistage sampling technique was used. First, the community's quarters were listed and the required quarters selected by simple random sampling (balloting). Second, households in each selected quarter were numbered and selected by systematic sampling at a fixed interval. Third, one eligible mother was interviewed per selected household; where a household had more than one eligible mother, one was chosen by simple random sampling.

Instrument

Data were collected with a researcher-developed structured questionnaire based on the study objectives and the literature. Section A covered socio-demographic, obstetric and information-related characteristics (age, marital status, religion, ethnicity, education, occupation, parity, age of child, antenatal care (ANC) attendance, receipt of EBF information during ANC and main source of EBF information). Section B contained 12 multiple-choice knowledge items on the definition, duration, initiation, colostrum, benefits and complementary feeding. Section C contained practice items on initiation, pre-lacteal feeds, exclusivity, timing of complementary foods, feeding frequency and continued breastfeeding. Section D contained 20 statements on perceived socio-cultural factors in four domains (family influence, cultural beliefs, religious and community factors, and maternal and environmental factors), rated on a four-point Likert scale. Face and content validity were established through review

by the supervisor and specialists in maternal and child health nursing and research methodology, whose corrections were incorporated. Reliability was tested in a pilot study with 40 mothers (10% of the sample) in a community outside the study area with similar characteristics; internal consistency was assessed with Cronbach's alpha (α = [insert value]), with $\alpha \geq 0.70$ considered acceptable.

Data Collection

The questionnaire was interviewer-administered in English or the participant's preferred language by the first author and trained female research assistants during household visits, over [insert duration of data collection]. Questionnaires were checked for completeness on the spot. Of 397 questionnaires administered, 390 were complete and valid for analysis (response rate 98.2%).

Data Analysis

Data were analyzed with IBM SPSS Statistics version 27. Knowledge items were scored 1 for a correct and 0 for an incorrect response; an item mean ≥ 0.5 indicated adequate knowledge on that item. Total knowledge scores were expressed as a percentage and classified as poor ($< 50\%$), moderate (50–69%) or good ($\geq 70\%$). Eleven practice items were scored 1 for the recommended practice and 0 otherwise; total practice scores $\geq 70\%$ were classified as high and $< 70\%$ as low practice. Socio-cultural items were scored Strongly Agree = 4, Agree = 3, Disagree = 2 and Strongly Disagree = 1; an item mean ≥ 2.5 indicated a perceived influencing factor. The Chi-square test was used to examine the relationship between knowledge and practice and the associations of socio-demographic characteristics with knowledge and practice. Variables with $p < 0.25$ at the bivariate level were entered into multivariable binary logistic regression models for good knowledge (good vs. moderate or poor) and high practice (high vs. low), and adjusted odds ratios (AOR) with 95% confidence intervals (CI) are reported. Statistical significance was set at $p < 0.05$.

Ethical Considerations

Ethical approval was obtained from [insert name of ethics committee and approval number], and permission was obtained from the Usugbenu community leadership and local health authorities. Written informed consent was obtained from mothers aged 18–49 years; for mothers aged 15–17 years, parental or guardian consent was obtained in addition to the adolescent's assent. Participation was voluntary, questionnaires were identified by code only, and data were stored in locked cabinets and password-protected files accessible only to the research team.

Table 1: Socio-demographic characteristics of respondents (n = 390)

Characteristic	Category	n	%
Age (years)	< 20	42	10.8
	20–29	158	40.5
	30–39	161	41.3
	≥ 40	29	7.4
Marital status	Single	42	10.8
	Married	338	86.7
	Divorced/widowed	10	2.6
Religion	Christianity	342	87.7
	Islam	21	5.4
	Traditional/other	27	6.9
Ethnic group	Esan	310	79.5
	Benin	32	8.2
	Igbo	21	5.4
	Yoruba/other	27	6.9
Education	No formal education	48	12.3
	Primary	86	22.1
	Secondary	171	43.8
	Tertiary	85	21.8
Occupation	Farmer	163	41.8
	Trader	106	27.2
	Artisan	52	13.3
	Civil servant	38	9.7
	Housewife/other	31	8.0
	1	103	26.4
Parity	2	118	30.3
	3	91	23.3
	≥ 4	78	20.0
	0–6	116	29.7
Age of child (months)	7–12	108	27.7
	13–18	88	22.6
	19–24	78	20.0
	Yes	348	89.2
Attended ANC	Yes	292	74.9
Received EBF information during ANC	Health workers	183	46.9
Main source of EBF information	Family members	72	18.5
	Radio/television	59	15.1
	Friends	31	7.9
	Social media	28	7.2
	Others	17	4.4

Note: ANC = antenatal care; EBF = exclusive breastfeeding.

RESULTS

Characteristics of Respondents

Of 397 mothers, 390 completed valid questionnaires (98.2%). Most were married (86.7%), Christian (87.7%) and Esan (79.5%), and 89.2% had attended antenatal care (ANC) (Table 1).

Maternal Knowledge of Exclusive Breastfeeding

Only 32.0% of mothers had good knowledge of EBF. The weakest item was that giving water before six months ends EBF (59.0% correct) (Table 2).

Practice of Exclusive Breastfeeding

Only 56.4% reported EBF for six months, and 32.1% gave other liquids before six months; 77.0% had high overall practice (Table 3).

Perceived Socio-Cultural Factors

All 20 items exceeded the criterion mean of 2.5 (grand mean 3.7), with cultural beliefs and maternal and environmental factors rated highest (Table 4).

Relationship between Knowledge and Practice

High practice rose from 46.3% among mothers with poor knowledge to 91.2% among those with good knowledge ($\chi^2 = 59.16$, $df = 2$, $p < .001$), so the null hypothesis was rejected (Table 5).

Factors Associated with Knowledge and Practice

Education, ANC attendance, receiving EBF information during ANC and main source of information were associated with both knowledge and practice; other characteristics were not (Table 6). After adjustment, education, ANC attendance, EBF information during ANC

Table 2: Maternal knowledge of exclusive breastfeeding (n = 390)

Knowledge item (correct answer)	n (%)	Mean $\pm$ SD
Definition of EBF (breast milk only, except prescribed medicines)	273 (70.0)	0.70 $\pm$ 0.46
Breast milk is ideal because it contains all nutrients for six months	273 (70.0)	0.70 $\pm$ 0.46
EBF protects infants from illnesses and infections	269 (69.0)	0.69 $\pm$ 0.46
EBF reduces diarrhea and respiratory infections	262 (67.2)	0.67 $\pm$ 0.47
Breastfeeding should start within one hour of birth	257 (65.9)	0.66 $\pm$ 0.47
EBF improves infant growth and development	254 (65.1)	0.65 $\pm$ 0.48
During EBF, infants receive breast milk only	250 (64.1)	0.64 $\pm$ 0.48
Complementary foods start at six months	241 (61.8)	0.62 $\pm$ 0.49
Colostrum is beneficial first milk	238 (61.0)	0.61 $\pm$ 0.49
Maternal benefit: faster recovery and reduced bleeding	235 (60.3)	0.60 $\pm$ 0.49
EBF should last six months	234 (60.0)	0.60 $\pm$ 0.49
Giving water before six months ends EBF	230 (59.0)	0.59 $\pm$ 0.49
Mean item score		0.64
Overall knowledge level		
Good ($\geq$ 70%)	125 (32.0)	
Moderate (50–69%)	183 (47.0)	
Poor (< 50%)	82 (21.0)	

Note: n (%) = number correct, or number at each knowledge level. Items scored correct = 1, incorrect = 0; item mean $\geq$ 0.5 = adequate knowledge. EBF = exclusive breastfeeding.

Table 3: Practice of exclusive breastfeeding (n = 390)

Practice	Response	n (%)
Breastfed after delivery	Yes	370 (94.9)
Time of initiation	Within 1 hour	260 (66.7)
	1–24 hours	100 (25.6)
	> 24 hours	30 (7.7)
Gave anything before first breastfeed	Yes	80 (20.5)
Pre-lacteal feed given (n = 80)	Water	35 (43.8)
	Infant formula	25 (31.3)
	Glucose water	12 (15.0)
	Herbal preparation	8 (10.0)
Exclusively breastfed for six months (self-report)	Yes	220 (56.4)
Gave water in first six months	Yes	100 (25.6)
Gave infant formula in first six months	Yes	55 (14.1)
Gave herbal mixtures in first six months	Yes	35 (9.0)
Gave other liquids in first six months	Yes	125 (32.1)
Age at first complementary food	Before 6 months	80 (20.5)
	At 6 months	270 (69.2)
	After 6 months	40 (10.3)
Breastfeeding frequency	On demand	280 (71.8)
	Fixed times only	85 (21.8)
	Occasionally	25 (6.4)
Continued breastfeeding after complementary foods	Yes	340 (87.2)
Overall practice level	High ($\geq$ 70%)	300 (77.0)
	Low (< 70%)	90 (23.0)

Note: Pre-lacteal feed percentages are of the 80 mothers who gave one. Overall practice was scored on 11 items; $\geq$ 70% = high practice.

and health workers as the main source remained independent predictors of both good knowledge and high practice (Table 7).

DISCUSSION

This study assessed maternal knowledge, practice and perceived socio-cultural influences on EBF in a rural Edo

State community. Three main findings emerged. First, knowledge was moderate and uneven: only a third of mothers had good knowledge, and the weakest items concerned water-giving, duration and colostrum. Second, knowledge was strongly related to practice, with high practice nearly twice as common among mothers with good knowledge as among those with poor knowledge. Third, education and antenatal contact, especially

Table 4: Perceived socio-cultural factors influencing exclusive breastfeeding (n = 390)

Domain and item	Agree*, n (%)	Mean
Family influence (sub-mean 3.7)		
Family members encourage me to practice EBF	390 (100.0)	4.0
My husband/partner supports EBF	388 (99.5)	3.9
Pressure from family members affects my ability to practice EBF	350 (89.7)	3.7
Advice from older relatives influences my feeding decisions	355 (91.0)	3.6
Support from family members makes EBF easier	325 (83.3)	3.2
Cultural beliefs (sub-mean 3.8)		
Traditional beliefs in my community encourage EBF	390 (100.0)	4.0
Some cultural practices promote giving water before six months	363 (93.1)	3.8
Community norms influence mothers' feeding decisions	365 (93.6)	3.8
Traditional beliefs encourage herbal preparations for infants	352 (90.3)	3.7
Cultural expectations affect how long mothers practice EBF	358 (91.8)	3.7
Religious and community factors (sub-mean 3.5)		
Religious leaders influence mothers' breastfeeding decisions	382 (97.9)	3.9
My religious beliefs support EBF	365 (93.6)	3.7
Community members support mothers who practice EBF	326 (83.6)	3.5
Information from health workers influences my practice	335 (85.9)	3.3
Health education programs in my community encourage EBF	317 (81.3)	3.2
Maternal and environmental factors (sub-mean 3.8)		
Financial constraints influence infant feeding choices	390 (100.0)	4.0
Work or business activities make EBF difficult	390 (100.0)	3.9
Social and cultural factors influence my decision to practice EBF	370 (94.9)	3.9
Lack of adequate maternity leave affects EBF	361 (92.6)	3.7
Availability of breastfeeding information encourages EBF	332 (85.1)	3.3
Grand mean		3.7

Note: *Strongly agree and agree combined. Scale: strongly agree = 4 to strongly disagree = 1; criterion mean = 2.5. EBF = exclusive breastfeeding.

Table 5: Relationship between maternal knowledge and practice of exclusive breastfeeding (n = 390)

Level of knowledge	High practice, n (%)	Low practice, n (%)	Total
Good	114 (91.2)	11 (8.8)	125
Moderate	148 (80.9)	35 (19.1)	183
Poor	38 (46.3)	44 (53.7)	82

Note: $\chi^2 = 59.16$, $df = 2$, $p < .001$.

receiving EBF information from health workers during ANC, were the most consistent predictors of both knowledge and practice, while socio-cultural influences were almost universally endorsed. About two-thirds of mothers answered each knowledge item correctly, similar to the 70% adequate knowledge reported in Gwagwalada, Abuja (Okoroiwu et al., 2021) but lower than the 74.2% pooled estimate from Ethiopia (Gebeyehu et al., 2023) and the 84% reported in Kigali, Rwanda (Luo et al., 2021). The 21.0% with poor knowledge is comparable to the 29.0% of mothers in Noakhali, Bangladesh, who could not define EBF (Sultana et al., 2022). The weakest item, that giving water before six months ends EBF, matters most because water-giving was also a common deviation from EBF in practice (25.6%) and a widely endorsed cultural practice (93.1%). Similar beliefs that infants need water have been documented in Ethiopia and Benin (Shitie et al., 2022; Lokossou et al., 2021). The 39.0% who regarded colostrum as harmful points to a second misconception with direct consequences for early feeding.

Just over half of mothers (56.4%) reported EBF for six months. This is lower than the 70.4% reported in Horro District, Ethiopia (Jebena & Tenagashaw, 2022) and the 76.4% in Kigali (Luo et al., 2021), similar to the rates of about half reported in Abuja and the Somali Region of Ethiopia (Okoroiwu et al., 2021; Shitie et al., 2022), and above the 26.8% in Jigawa State (Sabo et al., 2023) and the 36.6% previously reported in Edo State (Atimatia & Adam, 2020). The main departures from exclusivity were other liquids (32.1%), water (25.6%) and complementary foods before six months (20.5%). In contrast, 77.0% of mothers had a high overall practice score. The cumulative score also rewards early initiation, on-demand feeding and continued breastfeeding, which most mothers Practiced, so it overstates exclusive breastfeeding itself. Item-level indicators such as water, other liquids and early food are therefore a more reliable guide to EBF in this community than the overall score. The strong, graded relationship between knowledge and practice agrees with findings from Bangladesh, Jigawa State and Ethiopia (Hasan et al.,

Table 6: Socio-demographic and information-related factors associated with good knowledge and high practice of exclusive breastfeeding (n = 390)

Variable	Category	Good knowledge, %	χ^2 (df); p	High practice, %	χ^2 (df); p
Education	No formal	14.6	30.01 (6); < .001	54.2	26.41 (3); < .001
	Primary	23.3		69.8	
	Secondary	33.9		80.1	
	Tertiary	47.1		90.6	
Attended ANC	Yes	34.5	12.58 (2); .002	79.9	15.97 (1); < .001
	No	11.9		52.4	
EBF information during ANC	Yes	38.4	30.04 (2); < .001	82.9	23.20 (1); < .001
	No	13.3		59.2	
Main source of information	Health workers	41.0	24.22 (10); .007	84.2	13.77 (5); .017
	Social media	42.9		82.1	
	Family members	23.6		70.8	
	Radio/television	18.6		69.5	
	Friends	19.4		67.7	
	Others	23.5		58.8	
Occupation	Civil servant	42.1	4.90 (10); .898	89.5	9.15 (5); .103
	Trader	31.1		76.4	
	Farmer	29.4		71.2	
	Artisan	30.8		80.8	
	Housewife	28.6		92.9	
	Others	47.1		82.4	

Note: Knowledge tests compare good, moderate and poor knowledge; practice tests compare high and low practice. Age, marital status, religion, ethnicity, parity and age of child were not significant ($p > .05$). ANC = antenatal care; EBF = exclusive breastfeeding.

Table 7: Multivariable logistic regression of predictors of good knowledge and high practice of exclusive breastfeeding (n = 390)

Variable	Good knowledge AOR (95% CI)	p	High practice AOR (95% CI)	p
Education (ref: no formal)				
Primary	1.78 (0.62–5.12)	.281	1.95 (0.83–4.58)	.124
Secondary	2.99 (1.21–7.42)	.018	3.41 (1.48–7.86)	.004
Tertiary	5.21 (1.98–13.71)	.001	8.13 (2.94–22.48)	< .001
Attended ANC (ref: no)	3.88 (1.48–10.18)	.006	3.61 (1.68–7.76)	.001
EBF information during ANC (ref: no)	3.92 (1.76–8.74)	.001	3.34 (1.82–6.13)	< .001
Main source (ref: others)				
Health workers	2.28 (1.20–4.33)	.012	3.72 (1.29–10.73)	.015
Social media	2.45 (1.05–5.72)	.038	3.22 (0.85–12.21)	.084
Family members	1.04 (0.38–2.85)	.942	1.70 (0.51–5.67)	.389
Friends	0.78 (0.24–2.58)	.681	1.47 (0.45–4.81)	.521
Radio/television	0.74 (0.23–2.38)	.612	1.60 (0.54–4.74)	.388
Occupation (ref: farmer)				
Civil servant	—	—	3.44 (1.12–10.58)	.031
Trader	—	—	1.31 (0.71–2.42)	.384
Artisan	—	—	1.70 (0.73–3.96)	.221
Housewife	—	—	5.27 (0.78–35.62)	.089
Others	—	—	1.89 (0.45–7.94)	.381

Note: AOR = adjusted odds ratio; CI = confidence interval; ref = reference category; — = not entered in the model. ANC = antenatal care; EBF = exclusive breastfeeding.

2021; Sabo et al., 2023; Gebretsadik et al., 2022). Education showed the strongest gradient: tertiary-educated mothers had five times the odds of good knowledge and eight times the odds of high practice compared with mothers without formal education, consistent with Hasan et al. (2021) and Wallenborn et al. (2021). ANC attendance and receiving EBF information during ANC each roughly tripled the odds of both outcomes, in line with Jebena and Tenagashaw (2022) and Shitie et al. (2022) and with trials showing that

structured breastfeeding education improves EBF (Abdulahi et al., 2021; Admasu et al., 2022). Health workers as the main source of information were associated with both outcomes, whereas family members, friends and radio or television were not. Social media was associated with good knowledge but not with practice, suggesting it can inform but may not provide the support needed to sustain EBF (Moon & Woo, 2021). Occupation was not associated with practice at the bivariate level, but after adjustment civil servants had higher odds of high practice

than farmers. This is consistent with evidence that predictable working conditions are more compatible with breastfeeding than physically demanding work away from home (Wolde et al., 2021), and with the 100% of mothers who agreed that work or business made EBF difficult. Socio-cultural factors were endorsed by more than 80% of mothers on every item, with the highest means for family encouragement, traditional beliefs, religious leaders and financial constraints. The pattern shows influences pulling in both directions. Mothers simultaneously agreed that traditional beliefs encourage EBF and that cultural practices promote water and herbal preparations, and that husbands support EBF while family pressure affects their ability to practice it. This dual role of family and culture has been described in Niger, South Africa and Indonesia (Kapran, 2023; Modjadji et al., 2023; Meher & Zaluchu, 2024). The strong influence attributed to religious leaders (97.9% agreement) is less often reported and suggests that churches and mosques are an underused channel for EBF promotion. Information from health workers and community health education had the lowest means, even though health workers were the most common information source; this may reflect variable depth and consistency of counselling rather than low trust (Modjadji et al., 2023). Universal agreement that financial constraints influence feeding may work in favor of EBF where formula is unaffordable, but also against it where mothers must return early to farming and trading (Gayatri, 2021; Rahadian & Astuti, 2023).

Strengths and Limitations

The study's strengths include a community-based sample drawn by multistage random sampling, a high response rate (98.2%) and the use of multivariable analysis to identify independent predictors. Several limitations apply. The cross-sectional design shows associations but not their direction; knowledge may follow practice as well as precede it. Feeding in the first six months was self-reported, by some mothers more than a year later, and is subject to recall and social desirability bias, as the gap between the overall practice score and reported EBF suggests. Knowledge was assessed with multiple-choice items, which may overestimate understanding. Most socio-cultural items were endorsed by nearly all respondents, which limited their ability to discriminate, and the items mixed supportive and hindering statements, so a high mean shows that a factor is perceived as influential but not in which direction. Findings may not generalize to communities with different ethnic, religious or service-access profiles.

Implications for Practice and Policy

ANC and immunization contacts reach most mothers in this community and are the most effective point for intervention. Counselling should explicitly address the beliefs that infants need water, that colostrum is harmful

and that four months of EBF is enough, rather than only promoting EBF in general terms. Because family and culture strongly shape feeding decisions, husbands and older relatives should be invited into antenatal and postnatal sessions, and partnerships with religious leaders should be used to carry consistent messages. Mothers with little or no formal education and those engaged in farming and trading need additional, practical support, including follow-up through community health volunteers. Routine monitoring of EBF should use item-level indicators, such as water and early food, rather than a single self-reported question.

Conclusion

Mothers in Usugbenu Community had moderate and uneven knowledge of exclusive breastfeeding, with persistent gaps on water-giving, duration and colostrum. Knowledge was closely related to practice, and education, antenatal care attendance and receiving EBF information from health workers during ANC were the strongest predictors of both. Only just over half of mothers breastfed exclusively for six months, and about a third gave other liquids before six months, and family, cultural, religious and economic influences were perceived as strong. Strengthening targeted antenatal counselling, involving husbands, older relatives and religious leaders, and supporting mothers with less education or demanding work are needed to translate knowledge into exclusive breastfeeding.

Declarations

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