

Demystifying Barriers to and Drivers of Exclusive Breastfeeding Practice – A Cross-Sectional Study Among Mothers & Caregivers of Children Under 5 in Kaduna State, Nigeria.

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Abstract

This study presents findings from a cross-sectional survey conducted among mothers and caregivers of children under 5 in Kaduna State, Nigeria. Out of the 1647 collected questionnaires, 77.5% were validated for analysis. Results reveal that 53.3% of the women were aged 20-29 years, with older adolescent mothers (18-19 years) comprising 7.8%. The majority were married (97.8%), and over two-thirds had at least primary education (69.5%). While 54.5% identified as housewives, 28.7% engaged in petty trading, and 12.3% pursued farming full-time.

Table 2 in the appendix indicates good knowledge of exclusive breastfeeding (EBF) practices, with 88.4% knowing breastfeeding should start immediately after birth. However, EBF prevalence was only 33.3%, higher among women with more than secondary education (43.2%) and those aged 20-29 years (35.4%). Positive perceptions toward EBF were evident, but misconceptions persisted, impacting practice. Social norms influenced some contradictory behaviors, such as early introduction of water (51%).

Self-efficacy emerged as a strong driver, with 86% confident in making feeding decisions. Barriers to EBF included age and social norms, while perception and self-efficacy were identified as drivers. The logistic regression model explained 50.3% of EBF variance, emphasizing the need for targeted

interventions. Despite good knowledge, the suboptimal EBF prevalence underscores the importance of addressing multifaceted barriers to enhance breastfeeding practices.

Introduction

In 2018, a global total of 2.7 million children died due to malnutrition, comprising 45% of worldwide fatalities, as reported by UNICEF. The majority of these deaths occurred in Africa and Asia. Despite advocacy for exclusive breastfeeding in sub-Saharan Africa, a significant number of children in the region do not receive the nutritional benefits for the recommended six months. Malnourished children increased from 3.7 million in 2017 to 6.3 million in 2018, according to UNICEF. Studies suggest that a substantial percentage of annual neonatal deaths could have been prevented with breastfeeding (Ekambaram et al., 2010; Victora et al., 2016). Insufficient nutrition in early childhood can adversely affect physical and emotional development, impacting achievements and productivity in adulthood. Providing necessary nutrients through breastfeeding is widely acknowledged, offering economic and environmental benefits (Rollins et al., 2016; Hansen, 2016). Exclusive breastfeeding involves providing infants with only breast milk, but allows for oral rehydration solution (ORS), vitamins, minerals, and medications. After six months, complementary foods are recommended alongside breastfeeding for up to two years. Optimal breastfeeding is estimated to prevent 20,000 maternal deaths from breast cancer annually (Rollins et al., 2016; UNICEF, 2018).

The World Health Organization recommends exclusive breastfeeding for six months, aiming for two years, but global rates vary. In 2018, only 47% of mothers worldwide exclusively breastfed until six months. Rates differ across continents: Europe 43.7%, America 43.9%, Asia 55.2%, Africa 41.7% (Zong et al., 2021). Sub-Saharan Africa, including Nigeria, faces low exclusive breastfeeding rates (SUN, 2018; MICS 2017; NDHS, 2008). In Nigeria, only 13% practiced exclusive breastfeeding in 2017, below the WHO-recommended 90% (Jones et al., 2003). Improving exclusive breastfeeding requires proper health education, support, and motivation (Mogre et al., 2016). Understanding the knowledge, attitudes, and practices surrounding breastfeeding is crucial for reducing child mortality and promoting growth and immunity (WHO/UNICEF,

Journal of Nutrition and Food Science Research

2017). Breastfeeding attitudes, considered modifiable elements, play a role in shaping exclusive breastfeeding behaviors (Casal et al., 2017; Chekol et al., 2022).

The Society for Family Health, in collaboration with the Kaduna State Ministry of Health, conducted a baseline assessment to uncover barriers to exclusive breastfeeding practices among mothers and caregivers of children under 5 years in Kaduna state. Additionally, the study aims to investigate the determinants of breastfeeding practices among women.

Methodology

Study Design, Settings, and Sample Selection

A comprehensive cross-sectional household survey was conducted among mothers of children under the age of 5 years in Kaduna State. The study focused on women within the reproductive age range of 15-49 years residing in the state, specifically in eleven (11) out of the twenty-three (23) local government areas: Giwa, Soba, Zaria, Sabongari, Kudan Makarfi, Kubau, Lere, Kuru, Birningwari, and Igabi.

The sampling process involved a multi-stage cluster sampling technique, with clusters drawn independently for each area using the probability proportional to size (PPS) method. Given the recent population movements, an updated sampling frame for the state was created, utilizing a list of the smallest possible units (villages or camps) for sampling purposes. Population estimates from the January 2019 polio campaign

micro plan and VTS population estimates were employed for selection.

In the first stage, primary sampling units (clusters) were randomly selected using the probability proportional to size method. To mitigate potential challenges in accessing selected clusters during data collection, reserve clusters were also chosen at this stage using fractional interval systematic sampling. The second stage involved the systematic random selection of households within each cluster, using the same fractional interval systematic random sampling method.

A total of 1647 mothers were randomly chosen and administered a well-validated proprietary electronic questionnaire. The questionnaire was conducted face-to-face with the women in a comfortable setting within their households. Prior to the survey, the questionnaire underwent pre-testing to ensure its validity and reliability. The reliability test indicated a Cronbach alpha of 0.806 for knowledge, 0.875 for self-efficacy, and 0.926 for perception. Participants were approached for consent, emphasizing the voluntary nature of their participation.

Sample Size Determination

The sample size for this nutrition survey was calculated using the USAID Feed the Future Population-based Sampling Guide (Stukel, 2018). With this formula, we will be conducting 1,135 interviews with caregivers of children 0-59 months as shown in the table below:

Table : Sample Size Determination

LGA	P	p-1	Z ²	e ²	Nchildren	HH size	NHH
Birnin Gwari	47%	53%	3.8416	0.0025	383	5.3	103
Giwa	47%	53%	3.8416	0.0025	383	5.3	103
Igabi	47%	53%	3.8416	0.0025	383	5.3	103
Kuru	47%	53%	3.8416	0.0025	383	5.3	103
Kubau	47%	53%	3.8416	0.0025	383	5.3	103
Kudan	47%	53%	3.8416	0.0025	383	5.3	103
Lere	47%	53%	3.8416	0.0025	383	5.3	103
Makarfi	47%	53%	3.8416	0.0025	383	5.3	103
Sabon Gari	47%	53%	3.8416	0.0025	383	5.3	103
Soba	47%	53%	3.8416	0.0025	383	5.3	103
Zaria	47%	53%	3.8416	0.0025	383	5.3	103
Total							1135

Journal of Nutrition and Food Science Research

The sample size formula used was:

$$n = z_{1-\alpha}^2 \cdot \frac{P(1-P)}{d^2}$$

Nchildren = sample size

$z_{(1-\alpha)} = 1.96 \rightarrow z_{(1-\alpha)}^2 = 3.841$

p=estimated prevalence of stunting in Kaduna State (Source:Nigeria Health Watch)

d=degree of accuracy or margin of error

For the non-response rate, a 20% of the determined samples was added to arrive at 1,362 participants.

Data Analysis

The data analysis was done using SPSS Version 25.0. Both descriptive and inferential statistics were employed to analyze the data. Descriptive statistics were used to describe the demographic information of the respondents while inferential statistics were used to test the hypothesis. Binary logistic regression was employed as an inferential statistic to assess the effect of age, social norms, perception, and self-efficacies on the practice of exclusive breastfeeding. The statistical significance was set at a 95% confidence level. Logistic regression was performed to ascertain the effect of perception, social norms, self-efficacies and socio-demographics of the women on the likelihood that they practice exclusive breastfeeding.

Results

Demographic characteristics of the respondents

From Table 1 below, out of the 1647 questionnaires collected, a total of 1,277 underwent screening and validation for analysis, resulting in a response rate of 77.5%. Among the 1,277 women included in the analysis, a majority (53.3%) fell within the age range of 20-29 years. Older adolescent mothers (18-19 years) constituted 7.8% of the overall sample. Most of these women were married (97.8%), with a small percentage being widowed (1.4%). In terms of education, over two-thirds had attained at least primary education (69.5%), while one-third had no formal educational background. More than half identified as housewives (54.5%), while a notable portion engaged in petty trading (28.7%). Those who pursued farming as a full-time occupation accounted for 12.3% of the total sample population.

Table 1 : Socio-demographic characteristics of Mothers and Caregivers of Children Under 5 (n=1277)

Demography	Frequency (%)
Age (in years) •Less than 20 •20 - 29 •30 - 39 •40 - 49	100 (7.8) 681 (53.3) 414 (32.4) 82 (6.4)
Education •No formal education •Primary Education •Secondary Education •More than Secondary Education	426 (33.4) 390 (30.5) 329 (25.8) 132 (10.3)
Marital Status •Divorced •Married •Separated •Unmarried •Widowed	6 (0.5) 1249 (97.8) 2 (0.2) 2 (0.2) 18 (1.4)
Occupation •Petty Trader/Self employed •Civil Servant •Farmer •Housewife •Employee (Private)	367 (28.7) 16 (1.3) 157 (12.3) 696 (54.5) 11 (0.9)

Knowledge on Infant and Young Child Feeding and Practice of Exclusive breastfeeding

From Table 2 below, most of the women interviewed have a good knowledge of exclusive breastfeeding practice as the majority know that breastfeeding of babies should start immediately after birth (88.4%). More than eight per cent (87.9%) of these women understand that women must give the first milk (colostrum) to their babies immediately or at most 30 minutes after birth as this contains a high level of proteinous antibodies that fights infections and bacteria. Nearly half (46.6%) of the women correctly believed that until infants turn 6 months, they should not receive water even under extreme weather conditions. However, while over 71% of the women understood that infrequent breastfeeding and not emptying the breasts during the feeding lead to fullness/soreness of the breasts, only a little over a fourth of the women recognized that inconsistent breastfeeding often causes pains in the nipple areas.

Table 2 : Mothers' Knowledge about general Infant and Young Child Feeding (IYCF) Practices (n= 1277)

Knowledge of IYCF	Correct Knowledge	
	Frequency (n)	Per cent (%)
• How long after birth should a baby start breastfeeding? (Immediately or less than an hour after delivery)	1129	88.4
• What should a mother do with the "first milk" or colostrum? (Give it to her baby by breastfeeding soon after birth)	1123	87.9
• What is the most common reason for a mother to have sore/painful nipples? (Not breastfeeding often enough)	336	26.3
• What is the most common reason for a mother to have over-full breasts (Not breastfeeding often enough and not emptying breasts during feeding)	906	71.0
• Do you think that infants under six months of age should be given water if the weather is very hot? (No)	595	46.6

Generally, the good knowledge exhibited by most of the women interviewed didn't translate to the practice of exclusive breastfeeding as more than two-thirds (66.7%) did not practice exclusive breastfeeding. The prevalence of exclusive breastfeeding was estimated to be 33.3%; this is more noticeable among women with more than secondary school education (43.2%) and young women within the age bracket of 20-29 years (35.4%).

Behavioural Beliefs towards Practice of Exclusive Breastfeeding

Furthermore, the mothers studied had a positive perception towards exclusive breastfeeding as a significant proportion of them correctly demonstrated. For instance, nearly 69% of the women admitted that exclusively breastfeeding their children will improve the overall health quality of the infants, including brain development. Approximately 84% of the mothers perceived that a child should be placed on breastmilk within 30 minutes of birth and nearly 81% believed that the early initiation is beneficial even to the mother.

According to Table 3.0, about 45% of the women did not submit to the claim that EBF for 6 months will make the infant thirsty. Over two-thirds (72.2%) of the women agreed that breastmilk is sufficient to provide an infant with all the nutrient requirements for the first 6 months. However, the women illustrated a wide misconception believing that when infants don't receive water, they can develop a fever (48.7%) and that feeding babies with infants' formula will decrease milk production. Furthermore, 42% of women erroneously believed that feeding infants with other types of foods before 6 months is the best supply for the child's nutritional needs. Finally, most women agreed that feeding the baby with proteinous food such as organ meat will enhance the growth and development of the baby.

Journal of Nutrition and Food Science Research

Table 3 : Mothers' and Caregivers' Perceptions of Exclusive Breastfeeding Practices (n= 1277)

Items	Disagree N (%)	Neutral N (%)	Agree N (%)
1. Breastfeeding within ½ hour of childbirth promotes the child's health.	146(11.4%)	65(5.1%)	1066(83.5%)
2. Breastfeeding within ½ hour after birth contributes to the mother's health.	145(11.4%)	101(7.9)	1031(80.7)
3. Exclusive breastfeeding without water until 6 months may cause infant thirst.	572(44.8%)	162(12.7%)	543(42.5%)
4. Solely breastfeeding without other foods, water, or formula until completing 6 months provides all necessary nutrients for infant health.	185(14.5%)	164(12.8%)	928(72.2%)
5. Breastfeeding a 5-month-old without water prevents overheating.	439(34.4%)	216(16.9%)	622(48.7%)
6. Introducing infant formula may reduce breast milk production.	490(38.4%)	276(21.6%)	511(40.0%)
7. Exclusive breastfeeding until 6 months is optimal for infant health before introducing semi-solid or solid foods.	180(14.1%)	217(17.0%)	880(68.9%)
8. Combining breast milk and other foods between 4 and 6 months offers optimal nutrition for infants.	475(37.2%)	266(20.8%)	536(42.0%)
9. Solely breastfeeding until completing 6 months provides essential nutrients for optimal brain development.	156(12.2%)	196(15.3%)	925(72.4%)
10. Introducing organ meats at 7 months contributes to infant health.	123(9.6%)	204(16.0%)	950(74.4%)
11. A mother returning to work at 4 months may predominantly use formula for feeding.	455(35.6%)	312(24.4%)	510(39.9%)
12. Introducing iron-rich foods, such as meats and vegetables, at 6 months supports brain development.	141(11.0%)	268(21.0%)	868(68.0%)

Social Norms towards Practice of Exclusive Breastfeeding

Not so many women were influenced by the social norm; 80% of them still believed that a baby should be put to breastmilk under 30 minutes after birth, and about 72% concurred to exclusively feeding infants until 6 months after delivery. Nearly 63% and 64% agreed on feeding infants with a high protein diet and fruits and vegetables, respectively, after 6 months. However, the Social Norm exerted some influence that opposed EBF as demonstrated by some women. More than half (51%) of the women approved of giving water to infants before they turn 6 months, and over 44% each fed their children with infant formulas and semi-solid food before they turn 6 months.

Table 4: Social Norms questions on exclusive breast-feeding practices

Items	Disagree N (%)	Neutral N (%)	Agree N (%)
1. Most mothers like me think that after normal delivery a mother can breastfeed her infant within 1/2 hour.	132(10.3)	119(9.3%)	1026(80.3%)
2. Most mothers like me feed their babies only breast milk, and no other food, water, or infant formula for the first 6 months.	189(14.8%)	174(13.6%)	914(71.6%)
3. Most mothers like me approve of giving babies water before they reach 6 months of age.	423(33.1%)	206(16.1%)	648(50.7%)
4. Most mothers like me give their babies water before 6 months of age.	414(32.4%)	212(16.6%)	651(51.0%)
5. Most mothers like me approve of giving babies infant formula before they reach 6 months of age.	476(37.3%)	241(18.9%)	560(43.9%)
6. Most mothers like me give their babies baby infant formula before 6 months of age.	487(38.1%)	255(20.0%)	535(41.9%)
7. Most mothers like me approve of giving babies semi-solid or solid foods before they reach 6 months of age.	479(37.5%)	227(17.8%)	571(44.7%)
8. Most mothers like me give their babies semi-solid or solid foods before 6 months of age.	494(38.7%)	226(17.7%)	557(43.6%)
9. Most mothers like me add egg or fish or liver or meat or chicken in addition to other foods every day, starting at 6 months	218(17.1%)	259(20.3%)	800(62.6%)
10. Most mothers like me feed their babies fruits and vegetables every day beginning at 6 months of age.	179(14.0%)	278(21.8%)	820(64.2%)
11. Most mothers like me approve of using a bottle with a nipple to feed infants milk, water, juice...	267(20.9%)	260(20.4%)	750(58.7%)

Mothers' and Caregivers' Self-Efficacy on Exclusive Breastfeeding Practices

For the majority of the women, self-efficacy appeared to be a very strong attribute influencing EBF. Over 86% of the women could confidently make a decision about what to feed their infants, and 85% of them could take such a decision within a few hours after delivery. While nearly 78% of the women were confident to feed their infant colostrum exclusively for a few days after birth, only 71% were confident to continue the EBF until 6 months. 76% of the women were confident that they could produce sufficient breastmilk to meet the nutritional requirement of the infant during the first 6 months. Only 6 in 10 women were confident to prevent anyone from feeding their infant with other types of food/liquid before he is 6 months. In addition to the breastmilk, 72% and 73% of the women expressed confidence to feed their babies with mashed home-cooked food (such as yam) and animal protein respectively. While only approximately 60% of the women demonstrated confidence to stop a family member from feeding their infants with processed food and sweetened and flavoured drinks, 86% confided that they can patiently feed their infants slowly when they turn 6 months of those, 89% claimed to have the ability to confidently raise them healthy.

Journal of Nutrition and Food Science Research

Table : Self-Efficacy

Self-Efficacy	Unconfident	Neutral	Confident
1. How confident do you feel that you can make decisions about what to feed an infant?	66(5.2%)	109(8.5%)	1102(86.3%)
2. How confident were you about making decisions on what you have fed the infant in the first few hours and days after delivery?	85(6.7%)	99(7.8%)	1093(85.6%)
3. How confident were you about not feeding the infant other fluids but only colostrum in the first few days after delivery?	115(9.0%)	171(13.4%)	991(77.6%)
4. How confident are/were you that you will be/were able to give only breastmilk to an infant in the first 6 months without giving even a drop of water?	186(14.6%)	182(14.3%)	909(71.2%)
5. How confident are/were you that you will be/were able to sufficiently produce breast milk to meet the child's nutritional needs in the first 6 months?	100(7.8%)	206(16.1%)	971(76.0%)
6. How confident are/were you that you will be/were able to prevent anyone from trying to feed an infant anything other than breastmilk, like purchased baby foods (e.g. infant formula, pap, or other food/drinks), before 6 months of age?	238(18.6%)	269(21.1%)	770(60.3%)
7. How confident are/were you that you will be/were able to feed infant mashed family-cooked foods (rice, yams, vegetables) along with breastmilk after 6 months of age?	149(11.7%)	204(16.0%)	924(72.4%)
8. How confident are/were you that you will be/were able to feed infant animal source food (egg, fish, and chicken liver) along with breastmilk after 6 months of age?	132(10.3%)	213(16.7%)	932(73.0%)
9. How confident you are/were you that you were/will be able to stop your family members when (if) they give (gave) purchased foods (e.g. chips, flavoured juice, cold drinks) to an infant after 6 months of age?	254(19.9%)	261(20.4%)	762(59.7%)
10. How confident are you that you are/will be able to feed an infant slowly and patiently beginning at 6 months?	57(4.5%)	128(10.0%)	1092(85.5%)
11. How confident do you feel that you can raise an infant to be a healthy child?	69(5.4%)	70(5.5%)	1138(89.1%)

Influence of women's' behavioral beliefs, social norms and self-efficacy on practice of exclusive breast feeding

Table 5 below presents the results of a logistic regression analysis examining the predictors of the practice of exclusive breastfeeding. The dependent variable, the practice of exclusive breastfeeding, is dichotomous (1 = yes, 0 = no).

Table 5

Independent variables	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Age of Respondent	-0.027	0.012	4.822	1	0.028	0.974	0.951	0.997
Beliefs	0.098	0.019	25.356	1	0.000	1.103	1.061	1.145
Self-Efficacy	0.114	0.013	79.024	1	0.000	1.121	1.093	1.149
Social Norm	-0.305	0.019	260.916	1	0.000	0.737	0.710	0.765
Constant	2.215	0.959	5.339	1	0.021	9.159		
$\chi^2(11) = 572.894, p < .0005 R^2 = 50.3\%$								

The overall model is statistically significant ($\chi^2(11) = 572.894, p < .0005$), indicating that at least one of the independent variables (age, social norms, behavioural beliefs, and self-efficacy) is a significant predictor of the practice of exclusive breastfeeding. The coefficient of age (B) is -0.027, indicating that for each one-unit increase in the age of the respondent, the log-odds of practicing exclusive breastfeeding decrease by 0.027 units. The Wald statistic is 4.822, with 1 degree of freedom, and the

Journal of Nutrition and Food Science Research

p-value is 0.028, suggesting that age of the respondent is a statistically significant predictor. The odds ratio (Exp(B)) is 0.974, indicating that holding other variables constant, for each one-unit increase in the age of the respondent, the odds of practicing exclusive breastfeeding decrease by 2.6%.

The coefficient of behavioural beliefs is 0.098, suggesting that for each one-unit increase in beliefs, the log-odds of practicing exclusive breastfeeding increase by 0.098 units. The Wald statistic is 25.356, with 1 degree of freedom, and the p-value is < 0.0005 , indicating that beliefs are a statistically significant predictor. The odds ratio is 1.103, meaning that holding other variables constant, for each one-unit increase in beliefs, the odds of practicing exclusive breastfeeding increase by 10.3%. The coefficient of self-efficacy is 0.114, indicating that for each one-unit increase in self-efficacy, the log-odds of practicing exclusive breastfeeding increase by 0.114 units. The Wald statistic is 79.024, with 1 degree of freedom, and the p-value is < 0.0005 , showing that self-efficacy is a statistically significant predictor. The odds ratio is 1.121, indicating that holding other variables constant, for each one-unit increase in self-efficacy, the odds of practicing exclusive breastfeeding increase by 12.1%.

The coefficient of social norm is -0.305, suggesting that for each one-unit increase in the social norm, the log-odds of practicing exclusive breastfeeding decrease by 0.305 units. The Wald statistic is 260.916, with 1 degree of freedom, and the p-value is < 0.0005 , indicating that social norm is a statistically significant predictor. The odds ratio is 0.737, meaning that holding other variables constant, for each one-unit increase in social norm, the odds of practicing exclusive breastfeeding decrease by 26.3%.

Discussion

The socio-demographic characteristics of the study participants provide a context for understanding the breastfeeding practices. The majority of women were within the age range of 20-29 years, married, and had attained at least primary education. The occupation distribution showed a significant number of housewives, followed by those engaged in petty trading and farming. This demographic profile may influence the access to information and resources, thus impacting breastfeeding practices. The prevalence rates observed among specific groups highlight the importance of tailoring interventions to address the unique challenges and influences faced by different segments of the population.

Despite the seemingly good knowledge about EBF among women, there is a notable gap between knowledge and practice. However, this suggests that there is room for improvement in enhancing women's understanding of optimal breastfeeding practices. The FAO guidelines emphasize that a nutrition-related knowledge score below 70% is insufficient

and necessitate urgent nutrition-education intervention (Fautsch M & Glasauer, 2014).

The findings on cognitive factors and beliefs provide context for understanding the challenges in translating knowledge into practice. The discrepancy between knowledge and practice emphasizes the need for comprehensive nutrition education interventions that go beyond basic awareness and address the specific cognitive beliefs influencing breastfeeding decisions. Moreover, the acknowledgment that knowledge alone may not translate into practice is crucial. This is in line with the identified factors such as cognitive beliefs, social norms, and self-efficacy, which collectively contribute to shaping breastfeeding behaviors. While knowledge is a crucial foundation, it needs to be complemented by targeted interventions that address the complex interplay of cognitive, emotional, and social factors influencing breastfeeding practices. This is Consistent with the Ideation Model of Strategic Communication and Behavior Change, with various cognitive, emotional, and social domains playing a crucial role in women's breastfeeding decisions. This highlights the multifaceted nature of factors influencing exclusive breastfeeding practices among women in northwestern Nigeria. Addressing cognitive beliefs, enhancing self-efficacy, and understanding the impact of social norms are crucial components of effective interventions aimed at promoting optimal breastfeeding practices in the region.

Conclusions

In conclusion, this cross-sectional study sheds light on the complex dynamics influencing exclusive breastfeeding (EBF) practices among mothers and caregivers of children under 5 in Kaduna State, Nigeria. The findings highlight a substantial gap between knowledge and actual EBF practices, with a prevalence of only 33.3%, falling below the recommended standards. Despite good knowledge levels, various factors contribute to the suboptimal EBF rates.

The study underscores the need for targeted interventions that go beyond mere knowledge dissemination. While knowledge is crucial, addressing barriers such as social norms, misconceptions, and age-related influences is essential. The identified drivers of EBF—perception and self-efficacy—present key areas for intervention strategies. Enhancing women's confidence and correcting misconceptions through comprehensive educational programs may significantly impact EBF rates.

Moreover, the study emphasizes the importance of recognizing and challenging prevailing social norms that contribute to contradictory behaviors, such as the early introduction of water. Efforts should be directed towards community engagement and awareness campaigns to foster a supportive environment for EBF practices.

Journal of Nutrition and Food Science Research

The regression analysis provides valuable insights into the specific factors influencing EBF, offering a foundation for tailored interventions. However, the identified barriers and drivers represent just a fraction of the complex interplay affecting breastfeeding practices. Future research and interventions should consider the broader socio-cultural context to develop holistic strategies that address the multifaceted challenges faced by mothers and caregivers. Ultimately, improving EBF rates requires a collaborative effort from healthcare professionals, policymakers, and community stakeholders. By fostering an environment that supports and encourages exclusive breastfeeding, we can work towards ensuring optimal infant nutrition, overall health, and the well-being of both mothers and children in Kaduna State.

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Journal of Nutrition and Food Science Research

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