

Knowledge, Attitudes, and Practices of Exclusive Breastfeeding as a Family Planning Method among Nursing Mothers in Aiyekire Local Government Area, Ekiti State

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Abstract: Background: Exclusive breastfeeding (EBF) is recognized as a natural method of contraception through the Lactational Amenorrhea Method (LAM), particularly during the first six months postpartum. However, its effectiveness and adoption depend on awareness, perception, and practice among nursing mothers. This study investigates the perception and utilization of EBF as a contraceptive method among postpartum women.

Methods: A cross-sectional study was conducted among 150 postpartum women using a structured questionnaire to collect data on their awareness, perception, and practice of EBF as a contraceptive. Descriptive statistics, including frequencies and percentages, were used to analyze the data.

Results: Among respondents, 87.1% reported practicing EBF as a contraceptive, with 59.3% describing the experience as successful. While 96.4% indicated willingness to use EBF again, 27.9% had used additional contraceptive methods during the first six months postpartum. Regarding perception, 62.7% disagreed that EBF is unreliable, and 86.0% strongly agreed that EBF benefits both mother and child when properly practiced. However, 71.3% believed EBF should not be relied upon after menstruation resumes. Misconceptions about EBF's suitability for women with health challenges were noted among 21.7% of respondents.

Conclusion: The study reveals high levels of EBF awareness and practice but highlights gaps in knowledge about its limitations and concurrent contraceptive use. Comprehensive health education addressing these gaps is essential to maximize the benefits of EBF as a contraceptive method. Policymakers and healthcare providers must integrate family planning education into maternal and child health programs to enhance maternal and child health outcomes.

Key points: Exclusive breastfeeding, contraceptive, Lactational Amenorrhea Method, postpartum contraception, maternal health.

Background to the Study

Exclusive breastfeeding (EBF) is defined as the practice of feeding an infant only breast milk for the first six months of life, without any additional food or drink, not even water, except for vitamins, minerals, or medications as needed (World Health Organization [WHO], 2014; Hossain, Islam, Kamarul & Hossain, 2018). Breastfeeding involves nourishing a newborn with breast milk, either directly from the mother's breast or via expressed milk. Breast milk consists of two types: colostrum, the initial milk produced from 37 weeks of gestation to about seven days after birth, and mature milk, which is whitish and produced starting from the tenth day postpartum. Breastfeeding is recognized as essential for infant nutrition, providing numerous health benefits for both mothers and children worldwide (Ajayi, Hellandensis, & Odekunle, 2017). Despite being acknowledged as the most natural and nutritious feeding method for infants, breastfeeding practices vary globally. WHO recommends exclusive breastfeeding for the first six months of life, followed by complementary feeding alongside continued breastfeeding for up to two years or beyond (WHO, 2012). Governments in countries like Nigeria and the United Kingdom have adopted these recommendations, yet breastfeeding rates in some regions, including Nigeria and the United States, remain suboptimal and resistant to change (Bartick & Reinhold, 2015). Exclusive breastfeeding promotes the health and development of infants, protecting them against malnutrition, infections, and mortality while also fostering maternal-child bonding and contributing to maternal health by aiding uterine involution and delaying ovulation (Otoide, Oronsaye, & Okonofua, 2017).

In many low-resource settings, where access to adequate weaning foods is limited, exclusive breastfeeding can prevent protein-calorie malnutrition, such as kwashiorkor and marasmus, which often result in growth retardation, wasting, and even death. Breastfed children have a higher likelihood of survival compared to their formula-fed counterparts, particularly in regions with inadequate healthcare services (Otoide et al., 2017). Furthermore, exclusive breastfeeding serves as a natural method of contraception through the Lactational Amenorrhea Method (LAM), which is based on the physiological suppression of ovulation due to elevated prolactin levels during breastfeeding (Johns Hopkins, 2018). Studies show that LAM is highly effective when practiced correctly, with fewer than 1% of users experiencing unintended pregnancies during the first six months postpartum (Gofurovna, 2022). Despite its numerous benefits, the utilization of exclusive breastfeeding as a contraceptive method remains limited. Data from the National Demographic and Health Survey (NDHS) revealed that only 5% of Nigerian women use exclusive breastfeeding for birth control, despite widespread knowledge of the practice among 97% of mothers (Johnson, 2017). This disparity underscores the need to explore the awareness, perceptions, and practices of exclusive breastfeeding as a contraceptive among lactating mothers, particularly in underserved areas.

The study was conducted in Aiyekire Local Government Area, Ekiti State, to assess the level of knowledge, perception, and practice of exclusive breastfeeding as a contraceptive among lactating mothers. This research aimed to provide insights that could inform health education strategies, enhance the effectiveness of exclusive breastfeeding advocacy campaigns, and contribute to the design of community-based interventions to improve maternal and child health. By investigating these parameters, the study sought to support stakeholders, including government agencies, non-governmental organizations, and health professionals, in promoting exclusive breastfeeding and its multifaceted benefits. The findings are expected to assist international organizations such as UNICEF and WHO in evaluating and enhancing their breastfeeding programs. Additionally, they may serve as a foundation for developing targeted educational interventions for health educators, nurses, and nutritionists to promote exclusive breastfeeding practices. For mothers, particularly those in rural areas, these results may raise awareness about the dual role of exclusive breastfeeding as an optimal nutrition strategy for infants and an effective natural contraceptive method. This research also highlights the importance of integrating exclusive breastfeeding education into antenatal care and community health programs to ensure broader access to accurate information and support for lactating mothers.

Materials and Methods

Study Design

The research adopted a descriptive design, chosen to enable the researcher to explore and describe the awareness, perception, and practice of exclusive breastfeeding as a contraceptive among lactating mothers attending infant welfare clinics in Aiyekire Local Government Area, Ekiti State. This approach allowed for an in-depth understanding of the subject within the study area.

Study Area

Aiyekire Local Government Area (LGA) is one of the 16 administrative divisions in Ekiti State, Nigeria. Located in the southern part of the state, it serves as an important economic and cultural hub. The headquarters of the LGA is in Igbara Odo, a prominent town in the area. Aiyekire LGA is predominantly agricultural, with many residents engaged in farming activities, cultivating crops such as yam, cassava, and maize. The population of Aiyekire LGA is diverse, consisting mainly of the Yoruba ethnic group, whose rich cultural heritage is reflected in their festivals, language, and traditional practices. The LGA comprises both urban and rural settlements, with a network of healthcare facilities catering to the health needs of the population. These include government-operated primary health centers, maternity centers, and private clinics that provide accessible healthcare services.

The health centers in Aiyekire LGA play a pivotal role in maternal and child healthcare, offering services such as antenatal care, postnatal care, immunization programs, and health education. They also provide essential reproductive health services, including family planning and infant welfare clinics, and actively promote exclusive breastfeeding through health education sessions and community outreach initiatives. Staffed by healthcare professionals such as doctors, nurses, midwives, and community health extension workers (CHEWs), these centers are strategically located to ensure accessibility across the LGA. Despite their significance, the health centers face challenges such as inadequate staffing, limited medical supplies, and infrastructural deficits, which can affect service delivery. However, they remain vital points for advancing public health initiatives and addressing the healthcare needs of women of reproductive age and their children. Aiyekire LGA's relatively high population of women of reproductive age and its commitment to healthcare improvement make it an appropriate setting for studies on maternal and child health. The area's focus on promoting public awareness programs underscores its relevance for examining awareness, perception, and practice of exclusive breastfeeding as a contraceptive method.

Sample Size

The sample size for this study was determined using the Leslie Kish formula, which considers the percentage of nursing mothers attending infant welfare clinics from a related previous study. Based on a 95% confidence level, a margin of error of 5%, and findings from the earlier study reporting 10% attendance, the calculated sample size for this study was 150 respondents. This sample size is deemed adequate to ensure the validity and reliability of the findings.

Sampling Techniques

A simple random sampling technique was employed to select five health centers out of the 18 health centers in Aiyekire LGA, Ekiti State. To ensure impartiality, the names of all 18 health centers were written on papers and assigned letters from A to R. These papers were folded and shuffled, and five were randomly drawn to determine the selected facilities eligible for the study. At each of the selected health centers, 30 questionnaires were distributed, making a total of 150 questionnaires. Within each health center, simple random sampling was also used to select respondents. During antenatal or infant welfare clinic sessions, participating women were invited to draw from folded papers labeled "Yes" or "No." Only women who drew "Yes" were included in the study. This approach ensured that all nursing mothers present at the clinics had an equal opportunity to participate in the study.

Data collection

The instrument for data collection in this study was a self-structured questionnaire designed to gather relevant data from lactating mothers attending infant welfare clinics in Aiyekire LGA, Ekiti State. The questionnaire was structured to capture socio-demographic information, assess knowledge and perceptions of exclusive breastfeeding as a contraceptive method, and evaluate its practice among respondents. To ensure validity, the draft questionnaire was reviewed by the research supervisor, and feedback was incorporated to refine its content and structure. Reliability was established using the test-retest method, where the instrument was administered to a group of respondents in a similar setting within Aiyekire LGA who were not part of the main study. The data from the two administrations were compared to ensure consistency and reliability of the instrument.

Method of Data Analysis

Data analysis was carried out using the IBM Statistical Package for Social Sciences (SPSS), version 20. Before data analysis, the data was examined for missing data and errors. An analysis to check for outliers was conducted and descriptive statistics such as mean, standard deviation, frequency and percentages were employed for descriptive analysis. A validity test was conducted using factor loadings. A reliability test on the valid items was employed by generating Cronbach's alpha values. As suggested by Daud et al. (2018), a coefficient of 0.6 and above was considered acceptable. Correlation analysis was conducted to measure the association between the constructs. Regression analysis was then performed to test the impact between the predictor and outcome variables.

Ethical Considerations

The ethical considerations of this investigation were prioritized throughout the research process. To ensure compliance with ethical standards, institutional review boards were consulted to obtain the necessary ethical approval for the study. Participants provided informed consent after receiving detailed information about the study's objectives, methods, and their legal rights. Data confidentiality and privacy were rigorously maintained through the anonymization of data and secure storage, with access to the research data restricted solely to the researcher. Any potential ethical concerns were addressed transparently to safeguard participant welfare throughout the study.

Results

Table 1: Sociodemographic Characteristics of the Respondents

Characteristic	Category	Frequency (n)	Percentage (%)
Age Distribution	<20	15	10.0
	20–30	54	36.0
	>30	81	54.0
Religion	Christianity	102	68.0
	Islam	48	32.0
Marital Status	Single	58	39.0
	Married	92	61.0
Educational Level	Tertiary Education	64	43.0
	Secondary Education	44	29.0
	Primary Education	17	11.0
	No Education	25	17.0
Occupation	Self-employed	78	52.0
	Civil Servants	50	33.0
	Unemployed	22	15.0
Number of Children	Two	81	54.0
	Three	26	17.0
	More than Three	43	29.0

The sociodemographic characteristics of the respondents in this study revealed several key trends. In terms of age distribution, the majority of respondents, 81 (54%), were aged over 30 years, followed by 54 (36%) who were between the ages of 20 and 30, and 15 (10%) who were under the age of 20. The religious composition of the sample was predominantly Christian, with 102 (68%) identifying as Christians, while 48 (32%) were Muslims. Regarding marital status, the majority were married, with 92 (61%) reporting this, while 58 (39%) were single. In terms of educational attainment, 64 (43%) of the respondents had completed tertiary education, 44 (29%) had completed secondary education, 17 (11%) had completed primary education, and 25 (17%) had no formal education. Occupationally, a significant proportion of respondents, 78 (52%), were self-employed, while 50 (33%) were civil servants, and 22 (15%) were unemployed. Lastly, regarding the number of children, the largest group of respondents, 81 (54%), had one child, followed by 43 (29%) with more than three children, and 26 (17%) with two to three children. These findings provide a comprehensive overview of the demographic background of the respondents, offering insights into the age, marital, educational, and employment characteristics, which could influence the perception and practice of exclusive breastfeeding as a contraceptive method.

Table 2: Awareness on Exclusive Breastfeeding as Contraceptive

Variables	Frequency	Percentage (%)
Have you heard of exclusive breastfeeding?		
Yes	107	71.4
No	43	28.6
Are you aware that exclusive breastfeeding is a birth control method?		
Yes	113	75.3
No	37	24.7
EBF can be an effective method of birth control?		
Yes	90	60.0
No	60	40.0
Using EBF for birth control does not require any drugs or tools		
Yes	146	97.3
No	4	2.7
Source of Information on EBF as Contraceptive		
Health worker	98	65.3
Media (TV, Radio, Social Media)	38	25.3
Family/Friends	14	9.3
Perceived Effectiveness of EBF in Preventing Pregnancy		
Very effective	89	59.3
Somewhat effective	47	31.3
Not effective	14	9.3

Table 2 presents the findings on the awareness of exclusive breastfeeding (EBF) as a contraceptive method among the respondents. A majority of the respondents, 107 (71.4%), reported having heard of exclusive breastfeeding, while 43 (28.6%) had not. In terms of awareness of EBF as a birth control method, 113 (75.3%) were aware, and 37 (24.7%) were not. When asked about the effectiveness of EBF as a contraceptive, 90 (60%) believed it to be an effective method of birth control, while 60 (40%) did not. Additionally, a significant number of respondents, 146 (97.3%), recognized that using EBF for birth control does not require any drugs or tools, while only 4 (2.7%) disagreed with this statement. Regarding the source of information on EBF as a contraceptive, 98 (65.3%) of respondents cited health workers as their primary source, while 38 (25.3%) received their information from media sources, including TV, radio, and social media. A smaller proportion, 14 (9.3%), mentioned family or friends as the source of their knowledge. Lastly, the perceived effectiveness of EBF in preventing pregnancy was assessed, with 89 (59.3%) respondents

considering it very effective, 47 (31.3%) considering it somewhat effective, and 14 (9.3%) believing it to be not effective at all. These results suggest a high level of awareness and positive perception of EBF as an effective contraceptive method among the majority of the respondents.

Table 3: Respondents Perception on Exclusive Breastfeeding as a Contraceptive

Variables	Frequency	Percentage (%)
Perception that EBF is an unreliable method of birth control		
Strongly agree	19	12.7
Agree	22	14.7
Disagree	15	10.0
Strongly disagree	94	62.7
Belief that EBF may not work for every woman		
Strongly agree	91	60.7
Agree	35	23.3
Disagree	7	4.7
Strongly disagree	17	11.3
Perception that EBF has no effect on mother and child		
Strongly agree	13	8.7
Agree	21	14.0
Disagree	19	12.7
Strongly disagree	97	64.7
Belief that EBF is beneficial for both mother and child when properly practiced		
Strongly agree	129	86.0
Agree	16	10.7
Disagree	5	3.3
Strongly disagree	0	0.0
Perception that EBF is unsuitable for women with health challenges		
Strongly agree	23	15.3
Agree	10	6.7
Disagree	22	14.7
Strongly disagree	95	63.3
Belief that EBF can still be used after the mother begins menstruating		
Strongly agree	8	5.3
Agree	11	7.3
Disagree	25	16.7
Strongly disagree	106	71.3
Perception that the effectiveness of EBF decreases with additional contraception		
Strongly agree	47	31.3
Agree	14	9.3
Disagree	33	22.0
Strongly disagree	56	37.3

Table 3 presents the respondents' perceptions of exclusive breastfeeding (EBF) as a contraceptive method. A majority of respondents (62.7%) strongly disagreed with the notion that EBF is an unreliable method of birth control, while 12.7% strongly agreed and 14.7% agreed. Only 10% of respondents disagreed with this statement. Regarding the belief that EBF may not work for every woman, 60.7% of respondents strongly agreed, 23.3% agreed, 4.7% disagreed, and 11.3% strongly

disagreed. When asked about the perception that EBF has no effect on the mother and child, 64.7% strongly disagreed, indicating a strong belief in the positive effects of EBF. A smaller proportion (8.7%) strongly agreed, and 14.0% agreed, while 12.7% disagreed. In contrast, the belief that EBF is beneficial for both the mother and child when properly practiced was strongly endorsed, with 86.0% of respondents strongly agreeing, 10.7% agreeing, and only 3.3% disagreeing. No respondents strongly disagreed with this belief.

The perception that EBF is unsuitable for women with health challenges was more divided, with 63.3% of respondents strongly disagreeing, 15.3% strongly agreeing, and 6.7% agreeing. A notable 14.7% disagreed with this perception. On the topic of whether EBF can still be used after the mother begins menstruating, 71.3% of respondents strongly disagreed, suggesting that most perceive EBF as ineffective after menstruation begins. Smaller percentages strongly agreed (5.3%) or agreed (7.3%), while 16.7% disagreed.

Finally, when asked whether the effectiveness of EBF as a contraceptive reduces after the introduction of additional contraception, 31.3% of respondents strongly agreed, 22.0% disagreed, and 37.3% strongly disagreed. A smaller proportion (9.3%) agreed with the statement, reflecting varied opinions on the impact of supplementary contraceptive methods on EBF's effectiveness.

These findings indicate a generally favorable perception of EBF as a contraceptive method, with strong beliefs in its effectiveness when practiced correctly, though some respondents expressed concerns about its suitability for all women, its role after menstruation, and its interaction with other contraceptive methods.

Table 4: Practice of Exclusive Breastfeeding as a Contraceptive

Variables	Frequency	Percentage (%)
Have you ever practiced EBF before as a contraceptive?		
Yes	130	87.1
No	20	12.9
Was it successful?		
Yes	89	59.3
No	61	40.7
Did you use any other contraceptive alongside EBF for the first six months after childbirth?		
Yes	42	27.9
No	108	72.1
Would you still consider the use of EBF as a contraceptive?		
Yes	145	96.4
No	5	3.6
If No, which other contraceptive did you use?		
Condom	70	46.4
Pills	34	22.9
Injectable	13	8.6
Withdrawal	24	16.4
IUCD	0	0.0
Abstinence	9	5.7
Based on your previous experience, would you recommend EBF as a contraceptive?		
Yes	103	68.6
No	47	31.4

The data on the practice of exclusive breastfeeding (EBF) as a contraceptive reveals significant insights into its use among the study participants. A substantial majority (87.1%) of respondents

reported having ever practiced EBF as a contraceptive, while only 12.9% had not. When asked about the success of using EBF as a contraceptive, 59.3% of the participants who practiced it indicated that it was successful, while 40.7% reported that it was not. Regarding the use of additional contraceptives alongside EBF in the first six months after childbirth, a majority (72.1%) did not use any other method, while 27.9% combined EBF with other contraceptive methods.

A striking 96.4% of respondents would still consider using EBF as a contraceptive, suggesting high confidence in its effectiveness as a birth control method. However, among the small minority (3.6%) who would not consider it, the most commonly used alternative contraceptives were condoms (46.4%), followed by pills (22.9%), withdrawal (16.4%), and injectables (8.6%). No participants selected IUCD, and a few (5.7%) reported using abstinence.

Finally, when asked whether they would recommend EBF as a contraceptive based on their previous experiences, the majority (68.6%) affirmed they would recommend it, while 31.4% would not. These findings indicate that while EBF is widely practiced and considered effective by most, there remains a portion of the population who are either less confident in its effectiveness or prefer alternative methods.

Discussion

This study highlights the practice of exclusive breastfeeding (EBF) as a contraceptive among lactating mothers, providing insights into its perceived effectiveness and adoption. The findings revealed that 87.1% of respondents had practiced EBF as a contraceptive method, indicating widespread awareness and utilization. This aligns with global reports that suggest EBF can be an effective method of birth control, particularly when practiced exclusively during the first six months postpartum under the lactational amenorrhea method (LAM) guidelines (Kennedy et al., 2023). Among the participants, 59.3% reported that EBF was successful as a contraceptive, although a significant proportion (40.7%) did not find it effective. The disparity in outcomes could stem from variations in adherence to strict EBF guidelines or differences in individual physiology, as noted in prior studies (Shaaban & Glasier, 2022). This emphasizes the need for health workers to provide detailed education on the conditions for EBF to serve effectively as contraception, such as the absence of menstruation and exclusive breastfeeding without supplementation. Despite mixed success rates, the majority of respondents (96.4%) expressed willingness to continue using EBF as a contraceptive, reflecting high trust in the method. This is consistent with findings by Rutstein and Winter (2021), who reported that breastfeeding mothers in low-resource settings often rely on EBF as a culturally acceptable and cost-effective contraceptive method. However, some respondents (3.6%) preferred alternative contraceptive methods, with condoms (46.4%) and pills (22.9%) being the most common choices. This shift could be attributed to concerns about EBF's reliability or lifestyle compatibility, as supported by recent evidence highlighting the increasing preference for modern contraceptives in mixed-method contexts (Darroch et al., 2023).

Interestingly, 72.1% of respondents did not use additional contraceptives alongside EBF during the first six months postpartum. This demonstrates confidence in EBF as a standalone method and aligns with recommendations from the World Health Organization (WHO) that LAM can provide up to 98% protection against pregnancy when applied correctly (WHO, 2022). However, for women who combined EBF with other methods, this behavior reflects a precautionary approach to minimize unintended pregnancies. The study also revealed that 68.6% of participants would recommend EBF as a contraceptive based on their experiences. This underscores the method's acceptability among users, despite its limitations. However, the 31.4% who would not recommend it highlight the need for tailored counseling to address misconceptions and provide accurate information about EBF's effectiveness and limitations.

While EBF remains a widely practiced and trusted contraceptive method, its variability in effectiveness underlines the importance of individualized education and support for mothers. Future interventions should focus on enhancing adherence to EBF guidelines and promoting informed choices by integrating EBF education into broader family planning programs. Further studies are

recommended to explore factors influencing the dual use of EBF with other contraceptive methods to optimize postpartum contraceptive practices.

Conclusion

This study highlights the perception and practice of exclusive breastfeeding (EBF) as a contraceptive among postpartum women. The findings reveal a mixed perception of EBF's reliability as a contraceptive method, with a majority of respondents acknowledging its benefits when properly practiced, particularly during the first six months postpartum. However, the study also identifies gaps in awareness regarding its limitations, especially in relation to the potential impact of health challenges, menstrual resumption, and concurrent contraceptive use. The results underscore the need for comprehensive health education programs to improve knowledge about EBF's role in postpartum contraception. Healthcare providers must ensure that women are informed of both the benefits and limitations of EBF as a natural contraceptive method. These efforts should be tailored to address misconceptions, provide alternative contraceptive options, and support women who may face challenges in exclusively breastfeeding due to health or personal circumstances.

This study contributes to the growing body of evidence on EBF and postpartum contraception, reinforcing the importance of integrating family planning education into maternal and child health services. Future research should explore the sociocultural factors influencing EBF practices and investigate strategies for optimizing its use in diverse settings. By promoting informed decision-making, policymakers and healthcare providers can enhance maternal and child health outcomes while addressing unmet contraceptive needs.

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