

Awareness and Perceptions of Exclusive Breastfeeding as a Method of Birth Control Among Catholic Pregnant Women Attending Antenatal Clinics in Rural Communities

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Abstract

Although exclusive breastfeeding (EBF) is widely recognized for its nutritional and immunological benefits, its role as a natural contraceptive through the Lactational Amenorrhea Method (LAM) remains insufficiently understood, particularly in rural communities where cultural and religious beliefs shape reproductive decisions. This study aimed to assess the level of awareness, perceptions, and barriers to the adoption of EBF as a method of birth control among Catholic pregnant women attending antenatal clinics in rural communities, while also examining the influence of education and religious beliefs on knowledge and acceptance of LAM. A quantitative survey design was employed using a structured questionnaire administered to 165 Catholic pregnant women. The instrument covered demographic characteristics, awareness of EBF and LAM, perceptions and beliefs, and

barriers to adoption. Data were analyzed using descriptive statistics and chi-square tests to examine associations between variables. The findings showed that most respondents were aged 25–34 years (47.3%) and married (84.8%). Although 61.8% had heard of EBF as a birth control method, only 35.2% were familiar with the term LAM, and only 25.5% understood its three effectiveness criteria. Perceptions were mixed, with 47.9% considering EBF a reliable method and 59.4% believing that it aligns with Catholic teachings. The main barriers identified were lack of counseling (51.5%), cultural pressure (43.6%), and fear of pregnancy despite amenorrhea (36.4%). Education level was significantly associated with awareness of LAM ($p = 0.03$). The study concludes that, despite the perceived compatibility of natural family planning with Catholic teaching, substantial informational and practical barriers continue to limit informed adoption of EBF as a contraceptive method in rural settings. These findings contribute to a better understanding of the gap between religious acceptance and practical knowledge, and underscore the need for strengthened health education, engagement of religious leaders, and literacy-sensitive interventions to support safe and informed use of EBF for birth control.

Keywords: Exclusive Breastfeeding; Lactational Amenorrhea Method; Birth Control; Catholic Pregnant Women; Rural Antenatal Clinics

INTRODUCTION

Exclusive breastfeeding (EBF) is widely recognized not only for its nutritional and immunological benefits to infants but also for its role in natural birth spacing through the Lactational Amenorrhea Method (LAM) (WHO, 2013; Kennedy et al., 1997). LAM is a modern adaptation of traditional breastfeeding practices, offering a hormone-free, cost-effective method of contraception during the first six months postpartum (Van der Wijden & Manion, 2015). Despite its proven efficacy when practiced correctly, LAM remains underutilized in many low-resource settings, particularly among women with limited access to reproductive health education (Fabic & Choi, 2013).

Natural family planning methods, including LAM, are especially relevant in religious communities where artificial contraceptives may be discouraged or rejected (John Paul II, 1981; Catechism of the Catholic Church, 1994). The Catholic Church promotes fertility awareness and natural methods as morally acceptable alternatives to artificial contraception (Gribble et al., 2008). In rural communities, where religious beliefs strongly

influence health behaviors, understanding the intersection between faith and reproductive choices is critical (Chukwuma & Obi, 2021).

EBF contributes significantly to maternal and child health outcomes, reducing infant mortality and promoting postpartum recovery (UNICEF, 2021; WHO, 2022). When combined with LAM, it offers dual benefits: nourishment for the child and temporary contraception for the mother (Bongiovanni & Mazzoni, 2019). However, misconceptions about breastfeeding and fertility persist, leading many women to abandon EBF prematurely or supplement with formula, which compromises the effectiveness of LAM (Adebayo & Ojo, 2020).

Studies have shown that while many women are aware of breastfeeding, few understand its contraceptive potential or the specific conditions required for LAM to work (Ekpenyong et al., 2025; Fatile & Akinyemi, 2021). These conditions include exclusive breastfeeding, amenorrhea, and an infant under six months old (Kennedy et al., 1997). Without proper knowledge, women may unknowingly rely on LAM ineffectively, increasing the risk of unintended pregnancy (Van der Wijden & Manion, 2015).

Educational attainment plays a significant role in reproductive health literacy. Women with higher education levels are more likely to understand and correctly apply LAM (Daniel & Ibrahim, 2025; WHO, 2023). In rural settings, where formal education may be limited, alternative strategies such as visual aids, peer education, and community health talks are essential to bridge the knowledge gap (UNFPA, 2022; Olufemi & Adeyemi, 2019).

Religious beliefs can both support and hinder the adoption of LAM. While Catholic doctrine supports natural family planning, confusion often arises between what is considered “natural” and “artificial” (Eze & Nnamdi, 2022; Nwankwo & Eze, 2020). Some women fear that using breastfeeding as birth control may conflict with religious teachings, especially when not explicitly endorsed by church leaders (Muitiriri, 2023; Chukwuma & Obi, 2021).

Health workers are the most trusted source of maternal health information in many rural communities (Fabic & Choi, 2013; WHO, 2022). However, religious leaders also hold significant influence and can reinforce or challenge health messages (Okon & Udo, 2022; UNFPA, 2022). Collaborative efforts between healthcare providers and faith leaders can

enhance the credibility and acceptance of LAM among Catholic women (Gribble et al., 2008).

Mass media and community-based programs have proven effective in promoting maternal health behaviors, including EBF (Nwankwo & Eze, 2020; UNICEF, 2021). Radio, posters, and storytelling can be tailored to local contexts to demystify LAM and encourage its adoption. Engaging family members, especially husbands and mothers-in-law, is also crucial in creating supportive environments for breastfeeding (Adebayo & Ojo, 2020; Bongiovanni & Mazzoni, 2019).

Despite the potential of LAM, few studies have explored its awareness and perception among Catholic pregnant women in rural Nigeria. Most existing research focuses on urban populations or general maternal health practices (Ekpenyong et al., 2025; Fatile & Akinyemi, 2021). This study aims to fill that gap by examining how religious beliefs, education, and community dynamics influence the understanding and use of EBF as a birth control method.

This study seeks to assess the awareness, perceptions, and barriers to the adoption of exclusive breastfeeding as a method of birth control among Catholic pregnant women attending antenatal clinics in rural communities. By identifying knowledge gaps and cultural influences, the findings will inform faith-sensitive health education strategies and promote the safe and effective use of LAM. Ultimately, the goal is to empower women with accurate information that aligns with both their health needs and spiritual values (WHO, 2013; UNFPA, 2022).

Objectives:

1. To assess the level of awareness of EBF as a birth control method among Catholic pregnant women.
2. To explore perceptions and beliefs regarding the effectiveness and acceptability of LAM.
3. To identify barriers to adopting EBF for birth control in rural Catholic communities.

MATERIALS AND METHODS

Study Design

This study employed a descriptive cross-sectional design, which is appropriate for assessing awareness and perceptions at a single point in time (Setia, 2016). The design

allowed for the collection of quantitative and qualitative data from Catholic pregnant women attending antenatal clinics in selected rural communities.

Study Area

The research was conducted in three rural communities within Taraba State, Nigeria: Wukari, Zing, and Takum. These communities were selected based on their accessibility, the presence of functional antenatal clinics, and the active cooperation of local Catholic religious leaders. Catholicism is the predominant religion in these areas, and faith-based values strongly influence reproductive health decisions. The selection of these communities provided a culturally and religiously relevant context for exploring awareness and perceptions of exclusive breastfeeding and the Lactational Amenorrhea Method (LAM) as natural methods of birth control.

Study Population

The study targeted Catholic pregnant women attending antenatal clinics in three rural communities of Taraba State—Wukari, Zing, and Takum—where Catholicism is the predominant religion. These communities were selected based on accessibility, the presence of functional antenatal services, and the willingness of local religious leaders to support the research. The population was chosen to reflect the intersection of faith-based beliefs and maternal health practices, particularly in relation to natural family planning methods like exclusive breastfeeding.

Participants were recruited directly from antenatal clinics during routine visits. The inclusion criteria were clearly defined to ensure relevance and consistency: women had to self-identify as Catholic, be currently pregnant, and actively attending antenatal care at the time of data collection. This approach ensured that respondents were not only within the reproductive age group but also engaged with formal maternal health services, making them suitable for assessing awareness and perceptions of the Lactational Amenorrhea Method (LAM).

Informed consent was a critical component of the recruitment process. Women were briefed on the purpose of the study, the voluntary nature of participation, and the confidentiality of their responses. Only those who expressed willingness and signed the consent form were included. This ethical consideration was aligned with global standards for research involving human subjects and helped foster trust between researchers and participants.

By focusing on Catholic pregnant women in rural antenatal settings, the study aimed to capture a nuanced understanding of how religious beliefs, cultural norms, and healthcare access influence the adoption of exclusive breastfeeding as a method of birth control. The selected population provided a rich context for exploring both the opportunities and challenges of promoting LAM within faith-based maternal health frameworks.

Exclusion criteria included:

The exclusion criteria for this study were carefully defined to ensure the relevance and integrity of the data collected. Women with medical conditions that contraindicated breastfeeding—such as HIV infection, certain chronic illnesses, or medication use incompatible with lactation—were excluded. This was necessary to maintain the focus on exclusive breastfeeding (EBF) and the Lactational Amenorrhea Method (LAM) as viable birth control options, which require uninterrupted breastfeeding to be effective.

Additionally, non-Catholic participants were excluded to preserve the religious context of the study. Since the research aimed to explore awareness and perceptions of EBF and LAM within Catholic doctrine, including individuals from other faiths could introduce confounding beliefs and practices. By limiting the sample to self-identified Catholic pregnant women, the study was able to more accurately assess how religious teachings and community norms influence reproductive health decisions in rural antenatal settings.

Sample Size Determination

The sample size for this study was determined using Cochran's formula for categorical data, which is widely used in survey research to estimate proportions with a specified level of precision (Cochran, 1977). In the absence of prior data on awareness levels of exclusive breastfeeding (EBF) and the Lactational Amenorrhea Method (LAM) in the target population, a conservative estimate of 50% awareness was assumed. This choice maximizes the required sample size and ensures adequate representation. With a 95% confidence level and a 5% margin of error, the minimum sample size was calculated to be 150 participants.

To account for potential non-response or incomplete questionnaires, an additional 10% was added to the sample size calculated. This adjustment is standard practice in field research to maintain statistical power and data reliability. As a result, the final sample size

was set at 165 Catholic pregnant women attending antenatal clinics in the selected rural communities of Taraba State. This sample was considered sufficient to capture meaningful insights into the awareness and perceptions of EBF as a method of birth control within the study population.

Sampling Technique

A purposive sampling technique was employed to recruit participants who met the predefined inclusion criteria, specifically Catholic pregnant women attending antenatal clinics in the selected rural communities. This non-probability sampling method was chosen to ensure that the study population aligned closely with the research objectives, allowing for targeted insights into the awareness and perceptions of exclusive breastfeeding and the Lactational Amenorrhea Method within a faith-based context (Etikan, Musa, & Alkassim, 2016).

Survey Questionnaire

Section 1: Demographic Information

Please tick or fill in the appropriate responses.

1. Age: _____
2. Marital Status: Single Married Widowed Divorced
3. Educational Level: No formal education Primary Secondary Tertiary
4. Occupation: _____
5. Number of Children: _____
6. Gestational Age (in weeks): _____
7. Parish Affiliation: _____
8. Frequency of Church Attendance: Rarely Occasionally Weekly Daily
9. Previous Breastfeeding Experience: Yes No

Section 2: Awareness of EBF and LAM

10. Have you heard of Exclusive Breastfeeding (EBF)? Yes No
11. Have you heard of the Lactational Amenorrhea Method (LAM)? Yes No
12. Source(s) of Information (tick all that apply): Health worker Church group Family/friends Media Other: _____
13. Can you identify the three criteria for LAM to be effective?
 - o Baby under 6 months old: Yes No

o No return of menstruation: Yes No

o Exclusive breastfeeding: Yes No

14. Do you believe EBF can prevent pregnancy? Yes No Not sure

Section 3: Perceptions and Beliefs

15. Do you believe using breastfeeding as birth control aligns with Catholic teachings? Yes No Not sure

16. Do you feel confident in using EBF/LAM to prevent pregnancy? Yes No

17. What do you think are the benefits of using EBF/LAM as a method of birth control?

18. What concerns do you have about using EBF/LAM?

19. Do you believe natural methods of family planning are preferable to modern contraceptives? Yes No Not sure

Section 4: Barriers to Adoption

20. What challenges do you face in practicing exclusive breastfeeding? (tick all that apply)
 Work schedule Lack of support Health issues Cultural beliefs Other:

21. Do you feel adequately supported by healthcare providers to use EBF/LAM? Yes No

22. Would you consider using EBF/LAM postpartum? Yes No Maybe

23. What support would help you adopt EBF/LAM more confidently?

Data Collection Procedure

Data were collected over a four-week period by trained research assistants fluent in English and the local dialect. Participants completed the questionnaire during routine antenatal visits. For illiterate participants, the questionnaire was administered orally.

Ethical Considerations

Ethical approval was obtained from the Taraba State Health Research Ethics Committee. Informed consent was obtained from all participants after explaining the purpose, procedures, and confidentiality of the study. Participation was voluntary, and respondents could withdraw at any time without consequences.

Data Analysis

Quantitative data was analyzed using SPSS version 25. Descriptive statistics (frequencies, percentages, means) were used to summarize demographic data and awareness levels. Chi-square tests were used to assess associations between demographic variables and awareness/perceptions. Qualitative responses were analyzed thematically to identify recurring beliefs and barriers.

RESULTS

Table 1: Socio-Demographic Characteristics of Respondents (n = 165)

Variable	Frequency	Percentage (%)
Age Group		
18–24 years	45	27.3
25–34 years	78	47.3
35–44 years	42	25.4
Marital Status		
Married	140	84.8
Single	25	15.2
Educational Level		
No formal education	20	12.1
Primary education	35	21.2
Secondary education	70	42.4
Tertiary education	40	24.3

Table 2: Awareness of Exclusive Breastfeeding as a Birth Control Method

Awareness Item	Yes (%)	No (%)
Heard of EBF as a birth control method	102 (61.8%)	63 (38.2%)
Know the term “Lactational Amenorrhea Method”	58 (35.2%)	107 (64.8%)
Understand the three conditions for LAM effectiveness	42 (25.5%)	123 (74.5%)

Table 3: Perceptions of EBF as a Birth Control Method

Perception Statement	Agree (%)	Disagree (%)	Neutral (%)
EBF is a reliable method of birth control	79 (47.9%)	56 (33.9%)	30 (18.2%)
EBF is acceptable within Catholic beliefs	98 (59.4%)	37 (22.4%)	30 (18.2%)
EBF is easier than other family planning methods	65 (39.4%)	70 (42.4%)	30 (18.2%)

Table 4: Barriers to Adoption of EBF for Birth Control

Barrier Identified	Frequency	Percentage (%)
Fear of pregnancy due to lack of menstruation	60	36.4
Cultural pressure to introduce water/formula early	72	43.6
Lack of counseling from health workers	85	51.5
Religious confusion about natural vs artificial methods	48	29.1

Table 5: Association Between Education Level and Awareness of LAM

Education Level		Aware of LAM (%)	Not Aware of LAM (%)	p-value
No formal education	5 (25.0%)	15 (75.0%)		
Primary education	10 (28.6%)	25 (71.4%)		
Secondary education	20 (28.6%)	50 (71.4%)		
Tertiary education	23 (57.5%)	17 (42.5%)	0.03*	

*Significant at $p < 0.05$

Table 6: Sources of Information About EBF and LAM

Source of Information	Frequency	Percentage (%)
Health workers	85	51.5
Religious leaders	25	15.2
Family and friends	30	18.2
Media (radio, TV, posters)	25	15.2

DISCUSSION

The study involved 165 Catholic pregnant women attending antenatal clinics in rural communities, with the majority aged 25–34 years (47.3%) and married (84.8%). Educational levels varied, with 42.4% having secondary education and 24.3% tertiary education. These demographics reflect a population in their reproductive prime, likely to benefit from targeted maternal health education (WHO, 2013). Previous studies have shown that younger, educated women are more receptive to natural family planning methods, especially when supported by faith-based messaging (Kennedy et al., 1997).

While 61.8% of respondents had heard of EBF as a birth control method, only 35.2% knew the term “Lactational Amenorrhea Method” and just 25.5% understood its three conditions. This mirrors findings from similar studies in Nigeria and Kenya, where awareness of LAM was low despite high breastfeeding rates (Ekpenyong et al., 2025). The gap between general awareness and technical understanding suggests that health education efforts must go beyond promotion and include practical instruction (Fatile et al., 2021).

Nearly half (47.9%) of respondents agreed that EBF is a reliable method of birth control, and 59.4% believed it aligns with Catholic teachings. This supports earlier research indicating that Catholic women often favor natural methods due to religious doctrine (John Paul II, 1981). However, only 39.4% felt EBF was easier than other methods, suggesting that practical challenges may outweigh theological alignment (Muitiriri, 2023). Perceptions are shaped by both cultural norms and the availability of support systems (Bongiovanni et al., 2019).

The most cited barrier was lack of counseling from health workers (51.5%), followed by cultural pressure to introduce water or formula early (43.6%). These findings align with studies showing that misinformation and traditional practices undermine exclusive breastfeeding (Adebayo et al., 2020). Fear of pregnancy due to amenorrhea (36.4%) and religious confusion (29.1%) further complicate adoption. Addressing these barriers requires culturally sensitive education and collaboration with religious leaders (Okon et al., 2022).

Education was significantly associated with awareness of LAM ($p = 0.03$), with 57.5% of tertiary-educated women aware of the method. This supports global evidence that education enhances reproductive health literacy (UNICEF, 2021). Women with higher education are more likely to access and interpret health information correctly (Daniel et al., 2025). Therefore, interventions should be tailored to different literacy levels, using visual aids and peer education (WHO, 2022).

Health workers were the primary source of information (51.5%), followed by family and friends (18.2%), religious leaders (15.2%), and media (15.2%). This confirms the central role of healthcare providers in shaping maternal health behaviors (Olufemi et al., 2019). However, the limited influence of religious leaders and media suggests missed opportunities for broader dissemination. Faith-based media and church programs could be leveraged to promote LAM more effectively (Nwankwo et al., 2020).

With 59.4% of respondents affirming that EBF aligns with Catholic beliefs, there is a strong foundation for promoting LAM within religious frameworks. The Catholic Church supports natural family planning, and EBF fits within this doctrine (Catechism of the Catholic Church, 1994). Faith-based antenatal programs can integrate teachings on natural fertility regulation, emphasizing both spiritual and maternal benefits (Chukwuma et al.,

2021). This approach may reduce resistance and empower women to make informed choices (Eze et al., 2022).

CONCLUSION

This study highlights a significant gap in awareness and understanding of exclusive breastfeeding (EBF) and the Lactational Amenorrhea Method (LAM) as natural birth control methods among Catholic pregnant women in rural communities. While a majority had heard of EBF, far fewer understood the specific conditions required for LAM to be effective. Perceptions were mixed, with many women expressing religious acceptance of EBF but also voicing concerns about its reliability and practical challenges. Educational level was a key factor influencing awareness, and health workers emerged as the most influential source of information, though religious leaders and media remain underutilized.

To improve adoption of EBF and LAM, targeted interventions must address both informational and cultural barriers. Health systems should prioritize training for healthcare providers to deliver clear, faith-sensitive counseling, while religious institutions can play a pivotal role in reinforcing the acceptability of natural family planning. By integrating reproductive health education into antenatal care and church-based programs, communities can empower women to make informed choices that align with both their health needs and spiritual values. This approach holds promise for enhancing maternal and child health outcomes in rural Catholic populations.

Recommendations

To enhance awareness and correct understanding of the Lactational Amenorrhea Method (LAM) among Catholic pregnant women in rural communities, it is essential to strengthen health education during antenatal care. Health workers should be trained to deliver clear, culturally sensitive messages about exclusive breastfeeding (EBF) and its role in natural family planning. Educational materials should emphasize the three conditions required for LAM to be effective and use visual aids and local languages to ensure comprehension across varying literacy levels. Integrating LAM education into routine maternal health services will help bridge the knowledge gap and promote informed reproductive choices.

Religious institutions, particularly Catholic churches, should be actively involved in promoting EBF and LAM as acceptable and faith-aligned methods of birth control. Church leaders can play a vital role by incorporating natural family planning messages into sermons, women's fellowship meetings, and premarital counseling sessions. Collaboration between healthcare providers and religious leaders can dispel misconceptions and reinforce the spiritual and health benefits of EBF. Faith-based endorsement of LAM may increase its acceptance and adoption among women who prioritize religious guidance in their reproductive decisions.

Community-based interventions should also address cultural barriers and social pressures that discourage exclusive breastfeeding. Programs that engage family members—especially husbands and mothers-in-law—can foster supportive environments for breastfeeding mothers. Peer support groups and mother-to-mother education initiatives can empower women to share experiences and overcome fears related to amenorrhea and fertility. By combining medical guidance, religious support, and community engagement, stakeholders can create a holistic framework that promotes EBF and LAM as viable, safe, and spiritually grounded methods of birth control.

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