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Influence of Traditional Beliefs and Practices of Exclusive Breastfeeding among Mothers Attending "Dr. Bello Buzu" Clinic, Kaura-Namoda, Zamfara State

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ABSTRACT
Breastfeeding has been the natural and normal means of feeding newly born infants, for the health benefits of the babies. Descriptive study design was adopted for this study and structured questionnaires were used to obtain demographic data from respondents. Majority of the respondents were within 18-25 years (43%), 83% married, 96.0% Muslims, and 74 % were Hausas. Majority (44%) received no formal education and 79% engaged in small and medium business. Most of the respondents have the knowledge of Exclusive breastfeeding (EBF), and are fully aware of its benefits through Health Workers. Exactly 60% of the respondents are practicing EBF, 40% have their traditional beliefs about it, while 57.1% considered it useful. About 26.0% prepared to use Water/herbs for the treatments of their babies, while 74.0% prefer EBF and take their infants to the hospital for treatment. However, 51.3% were influenced to the feeding practice by their father/mother's-in-law, 79.3% and 52% Practice EBF and received family supports respectively. There is need for mothers' to be educated on the health benefit of EBF and cultural contexts to be integrated into maternal and child health programs. Lastly, Key influencers such as grandmothers, spouses, and community leaders should be considered to promote and sustain behavioral change.

Keywords: Exclusive Breastfeeding; First Thick Yellowish Milk; Formal Education; Traditional Beliefs; Small and Medium Business

INTRODUCTION

Exclusive breastfeeding (EBF), can be seen as the feeding of infants breast milk only for the first six months of their life without any additional food or drink, not even water, which is the recognized standard globally as a crucial public health intervention for reducing infant mortality and morbidity (WHO, 2021). Breast milk provides all the nutrients needed by the infant in the first six months, in addition it contains antibodies that help combat viruses and bacteria, and lowers the risk of many childhood illnesses such as diarrhea and pneumonia (UNICEF, 2022). Despite its proven benefits, the rate of EBF remains low in many developing countries, including Nigeria, largely due to deeply rooted traditional beliefs and practices. (UNICEF, 2022).

Breastfeeding has been the natural and normal means of feeding infants, Yahaya & Ibrahim (2016). Exclusive breastfeeding (EBF) is key to achieving sustainable development goals (SDGs), but its practice has remained low in Nigeria, despite the strong evidences in support of EBF for the first six months of life (Adamu *et al.*, 2022). In many Nigerian communities, cultural norms and social beliefs significantly shape infant feeding practices such as, beliefs that breast milk alone is insufficient especially in hot climates, and early introduction of water, herbal concoctions, or semi-solid foods (Ameh & Adewole, 2021). These beliefs are passed down through generations and often endorsed by family elders, especially grandmothers and traditional birth attendants, who play a key role in postnatal care and advice (Ameh & Adewole, 2021).

In Nigeria, more than 50% of infants were fed complementary foods too early, which are often of very poor nutritional value (Ogunlaja *et al.*, 2024). Moreover, religious and cultural ceremonies influence breastfeeding decisions. In some communities, it is believed that colostrum (the first thick yellowish milk) is dirty or harmful and should be discarded, delaying the initiation of breastfeeding (Eze & Nwachukwu, 2020). Others believe that a child must be given herbal remedies shortly after birth for protection against evil spirits, thereby interrupting EBF. Such practices not only undermine the principles of EBF but also expose infants to infections. (Eze & Nwachukwu, 2020).

Educational level and socioeconomic status of mothers further interact with cultural beliefs. Mothers with lower educational attainment are more likely to adhere to traditional norms, whereas those with higher education often exhibit better awareness and acceptance of EBF recommendations (Ogunlade *et al.*, 2022). Healthcare system challenges, such as limited access to breastfeeding counseling, also contribute to the persistence of harmful traditional practices. (Ogunlade *et al.*, 2022). Furthermore, many mothers revert to traditional practices upon returning home, influenced by cultural pressures and societal expectations (Adeyemi *et al.*, 2023).

Given the persistent low rates of EBF and its critical impact on infant health, it becomes imperative to explore the traditional beliefs and practices that influence EBF in specific cultural settings. Therefore, this study seeks to investigate the effect of traditional beliefs and practices on exclusive breastfeeding among mothers, using Dr. Bello Buzu Women and Children Clinic in Kaura Namoda, Zamfara State as a case study.

MATERIALS AND METHODS

Research Design
This study adopted a descriptive cross-sectional research design, which is suitable for assessing prevailing cultural beliefs and practices regarding exclusive breastfeeding (EBF) among mothers at a specific point in time. The choice of this design is informed by its effectiveness in exploring relationships between cultural variables and health behaviors in comunity-based settings (Oladokun *et al*., 2 021). This design enabled the collection of both qualitative and quantitative data to provide a comprehensive understanding of how traditional beliefs impact EBF practices in Kaura Namoda.

Population of the Study
The target population comprises all lactating mothers with infants aged 0–6 months and attending Dr. Bello Buzu Women and Children Clinic, Kaura Namoda, Zamfara State, Nigeria. The choice of this clinic is based on its high patronage by mothers from various socio-cultural backgrounds and its role in maternal and child healthcare services.

Sample Size Determination
The sample size was determined using the Yamane formula for sample size estimation for a finite population:

$$n = \frac{N}{1+N(e)^2} \quad (1)$$

Where:
n = required sample size

N = population size
e = margin of error (0.05)

$$n = \frac{200}{1+200(0.05)^2} = \frac{200}{1+0.5} = \frac{200}{1.5} \approx 133 \quad (2)$$

Thus, a total of 133 respondents were selected for the study.

Sampling Technique and method of Data Collection
A systematic random sampling technique was used to select respondents for the period of four weeks (4 Weeks) that is (15 May – 15 June, 2025). Every breast feeding mother who attended the clinic during the data collection period and met the inclusion criteria was approached and recruited into the study by trained research assistants and administered questionnaires, and the instrument was adapted from validated tools used in similar studies. This technique ensured randomness and minimized selection bias (Adekunle & Musa, 2023, Okonkwo *et al*., 2020).

RESULTS AND DISCUSSION
Demographic Characteristics
The Demographic Characteristics (Age Distribution**,** Marital Status, Religion, Ethnicity, Occupational and Educational Status of the Respondents**)** and traditional beliefs and practices influencing exclusive breastfeeding among mothers attending Dr. Bello Buzu Women and Children Clinic in Kaura Namoda, Zamfara State was evaluated using a structured questionnaire in which 133 Responded mothers, were enrolled in the study. The results are presented below:
Majority of the respondents were aged 18-25 years 47(43.0 %) followed by those aged 26-30 years 35(25%), 31-35 years 26(18.0%), 36-40 years 25(18.0%), 41-45 years 5(4.0%) and lastly those aged 46- 50 years 2(1.0%). This indicate that, the number of lactating mothers attending the hospitals decrease with their age. This could be as the result of the decrease in the ovulatory cycle of women with age, which is in line with Jean *et al*., (2023), which stated that; Ovulation in reproductive age women is a natural physiological process and an indicator of fertility.
Another research by García *et al*., (2018) reported a *marked* decrease of female between the age ranged of 35–39 years fertility and conclusively stated a loss of fertility with aging in both women and men, mainly due to the decrease of gamete's quantity and quality with the passage of the years, and Women's fertility comes to an end at a median age of 45 years. Pal & Santoro (2003) also proved that; Birth rates declined with age and were found to be unchanged for the youngest (10–14) year's old females and the oldest (45–49) year's old women.

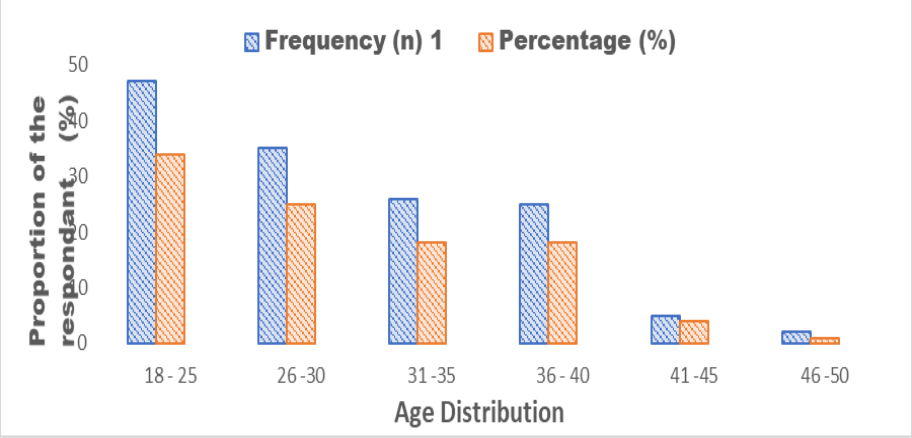

Figure 1: Age Distribution of Respondents

Figure 2 showed the distribution of mothers according to their marital status which indicated that 116(83%) of the respondents are married followed by Divorce 16(11.4%), Widowed 8(5.7%) and lastly single women with negative proportions. This could be due to the presence of their unstable live partner. As usual, non-marital birth rate was lower than the marital birth in most of the societies. Research by Osterman *et al*., (2023), confirmed the low rate of birth for unmarried women in the United States (U. S) which was reported to be 37.8 births per 1,000 unmarried women aged 15–44 in 2021.

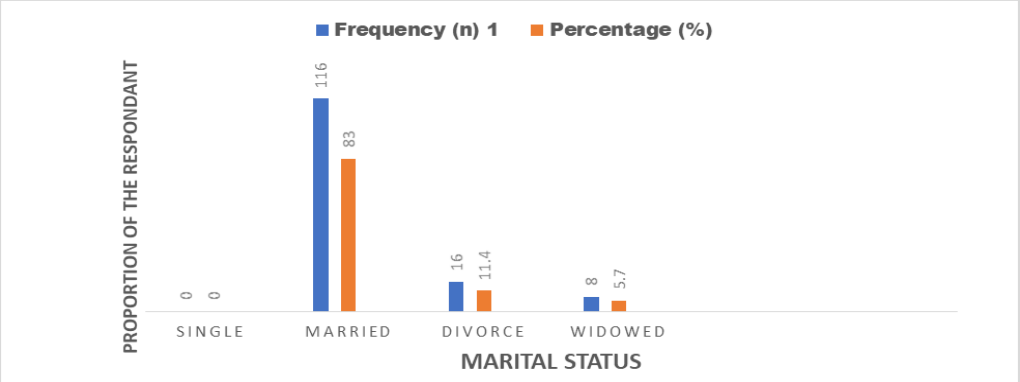

Figure 2: Marital status of the Respondents

Figure 3 Shows the distribution of mothers according to their religion and the result indicates 135(96.0%) respondents from Islamic faith and 5(4.0%) from Christianity. This could be due to the fact that Northern Nigeria has the highest proportion of Muslims, which are the dominant inhabitants of all the northern states. This is in line with the research of McKinnon (2021), which stated that, Christians are known to be (predominantly in the South) and Muslims (predominantly in the North). Zamfara state is one of the Sharia states in Nigeria, which believe to have Muslims as predominant inhabitants (Stonawski *et al*., 2016). This believed to be natural primary driver of religious change in Nigeria. Moreover, the people of Zamfara State are predominantly Muslim (Sunni) (Ifedi & Agu 2020).

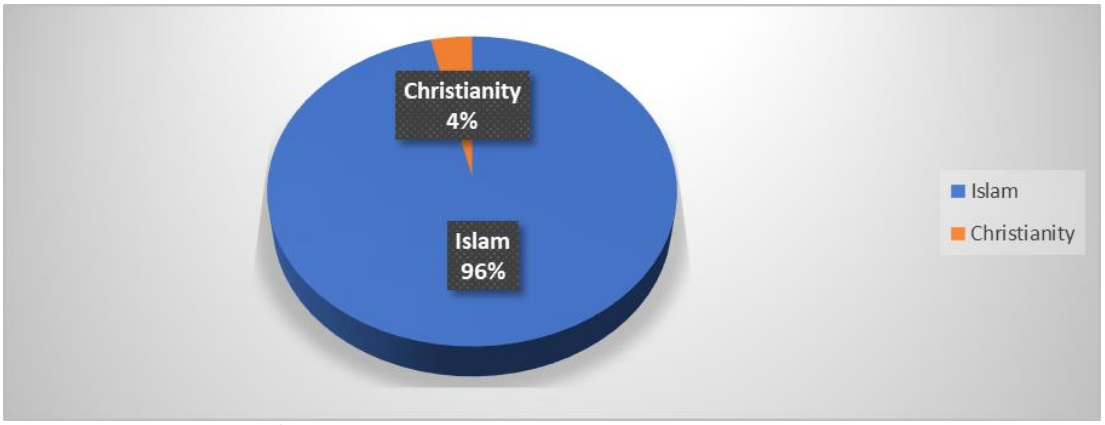

Figure 3: Religious status of the Respondents

Figure 4 showed the distribution of mothers according to their ethnicity. The result shows that, Hausa people are predominantly high with 103(74%), Fulani 32(22%), and Yoruba 5(4%). Northern Nigeria is composed of 19 out of the 36 states of the Nigerian federation and is the most heterogeneous region among all the three regions, with Hausa/Fulani been the majority (Mohammed, 2018). Furthermore, the major ethnic groups of Zamfara State are Hausa and Fulani, who historically share strong cultural ties and are very much intermixed, with other smaller groups (Ifedi & Agu 2020).

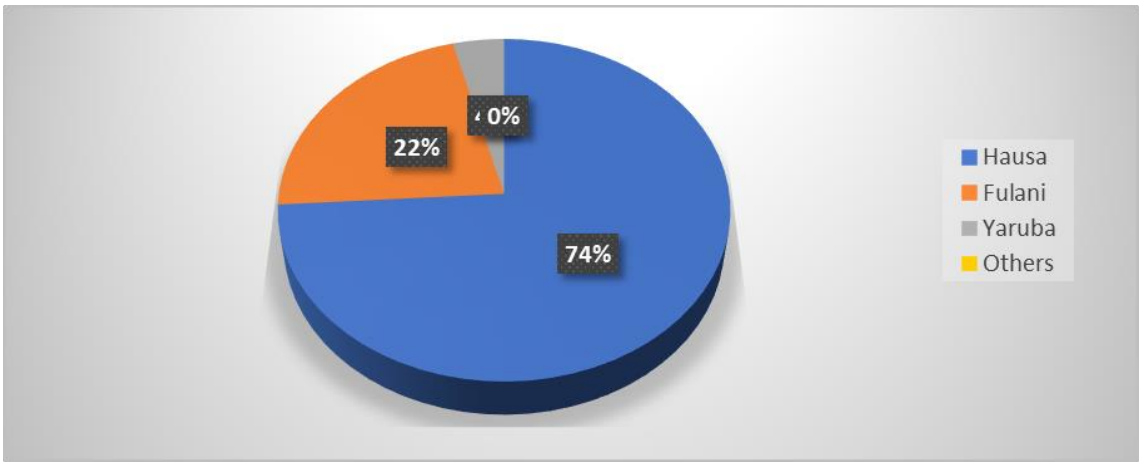

Figure 4: Ethnicity of the Respondents

Figure 5 describes the distribution of mothers according to their' education level. This indicates that 62(44%) received no formal education, 13(10%) had secondary education, primary education and lastly 20 (14%) had Degree/Tertiary education. The educational level of the respondents could have a positive impact on the baby as many of the nursing mothers lack the basic skills and knowledge to look after their children. Furthermore, such mothers with less/no formal education still believe in the traditional way of feeding their babies thereby ignoring the recommended child feeding and health practices that encourage exclusive breastfeeding, as well as the provision of nutrition supplements and a balanced diet.

Our study revealed that mothers who did not have formal education and mothers who had primary education were less likely to exclusively breastfeed their children than those who had secondary and tertiary education. Education is the fundamental human right of all the citizens (Nasidi and Wali, 2023). The reason of high percentage of the respondents with no formal education is due to gender discrimination in education which refers to the unequal treatment, access, and opportunity given to individuals based on their gender (Sowjanya 2023). This is in line with UNICEF (2019) that stated that, Zamfara is one of the states with the highest number of out-of-school children in Nigeria. Education is the strongest foundation to growth and societal development of the nation Sowjanya (2023).

The distribution of nursing mothers according to their occupation is presented in fig. 6. An estimate of 11(8%) of the respondents engaged in the lowest (small scale) business, 111 (79%) engaged in medium business and lastly 18 (12%) are civil servant. According to International Crisis Group (2020), the state has substantial solid mineral deposits, including gold exploited by artisanal miners in open pit mines. Despite its economic potential, the state is one of the states with the highest poverty rate in Nigeria. Furthermore, the poverty level in Zamfara State was 74 per cent above the national average of 40.1 percent (National Bureau of Statistics, 2019).

The association between exclusive breastfeeding and maternal education has been `reported by researchers. A study by Ogunlaja *et al*., (2024) confirmed that Civil servants and self-employed were more aware about exclusive breastfeeding than unskilled workers. Which is in line with United Nations International Children's Emergency Fund (UNICEF 2018), that said, mothers from poorer households are less likely to breastfeed their babies in high-income countries while in low- and middle-income countries like Nigeria, the small percentage of mothers who do not breastfeed tend to come from wealthier households. These results suggest the influence of socio-economic factors on breastfeeding behavior.

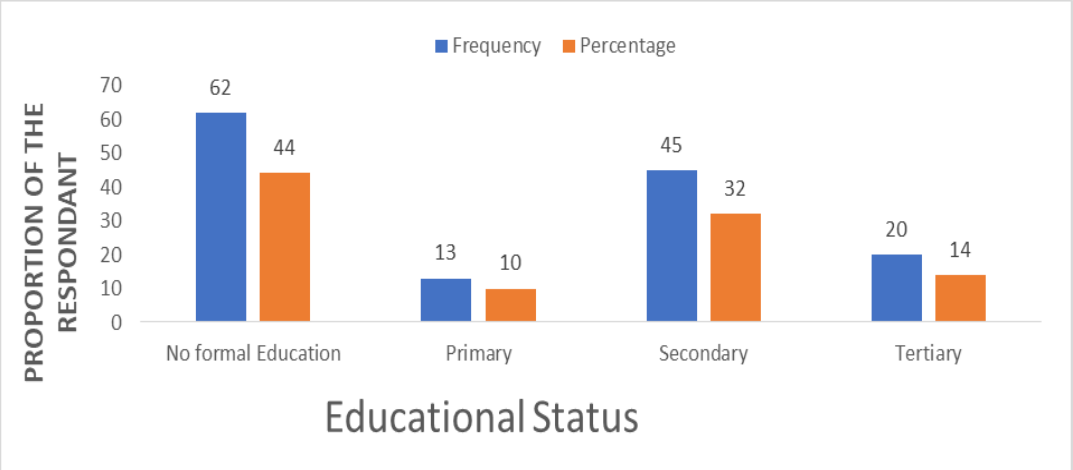

Figure 5: Educational Level of Respondents

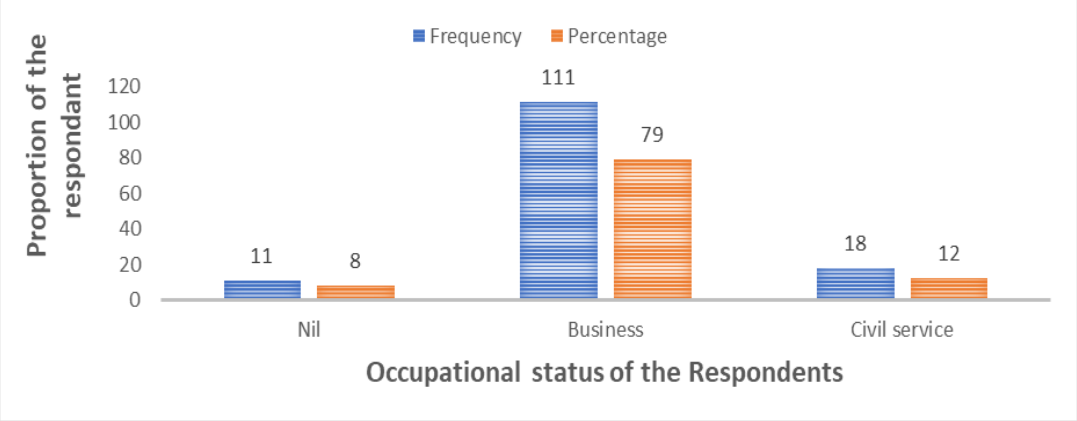

Figure 6: Occupational status of the Respondents

Awareness and Knowledge of Exclusive Breastfeeding

Table 1.0 below Shows the result of Awareness and Knowledge of Exclusive Breastfeeding and traditional beliefs and practices influencing it among nursing mothers attending Dr. Bello Buzu, out of which 115(83%) of the respondents have the knowledge of EBF while 25(17%) had no idea of the

feeding practice. A good number of them 87(62%) believed to know the benefit of the feeding practice while 53(38%) had no idea of it. Majority 94(68%), had the knowledge (source of information) of EBF from Health Workers, 22(15%) from Family members, 18(13%) from Media and lastly 6(4%) from other source.

Table 1: Awareness and Knowledge of Exclusive Breastfeeding

Question	Response Options	Frequency (n)	Percentage (%)
Have heard of exclusive breastfeeding	Yes	108	83.0%
	No	25	17.0%
Know the benefits of exclusive breastfeeding	Yes	80	62.0%
	No	53	38.0%
Total		133	100%
Source of information	Health Worker	87	68.0%
	Media	18	13.0%
	Family	22	15.0%
	Others	6	4.0%
	Total	133	100%

Source: Primary data

Table 2.0 shows the result of Traditional Beliefs about Breastfeeding practice and factors influencing it among mothers in the society. From the results, majority of the respondents 84(60%) are practicing EBF while 56(40%) have their traditional beliefs about the feeding practice. Unfortunately, 60(30.7%) considered the first yellow milk coming out from the breast (Colostrum) harmful and discard it away while the majority 80(57.1%) considered it useful to their babies. An estimate of 36 (26.0%) of the respondents considered Water/herbal medicine for their babies while to newborns the majority 104 (74.0%) prepared to practice exclusive breast feeding and take their babies to the hospital for treatment instead of herbal medicine.

From the results, it was also observed that majority of the respondents gave the infants other liquids before six months of their life. This is in agreement with the findings of another study (Liamputtong *et al*., 2012) which found EBF as a rare practice due to; cultural beliefs that infants need to take herbal medicine for proper immunity.Yet breastfeeding rates remain sub-optimal in Northwestern Nigeria (Anaba *et al*., 2022).

Furthermore, another research by (Oputa-Uzoukwu *et al*., 2025) stated a common perception by some mothers that breastmilk alone isn't enough; many believe infants need water or other liquids for hydration or nutrition. Moreover, some mothers worry about babies appearing weak, losing weight, or feeling thirsty, leading them to introduce water or herbal mixtures early (Amat Camacho *et al*., 2023). While some mothers feared conditions or illness, which they thought breastmilk couldn't prevent (Anaba *et al*., 2022). Some mothers and caregivers viewed colostrum as harmful or dirty, leading to its rejection, especially among first-time mothers or those who experienced infant loss. In these cases, breastmilk will often be discarded, replaced with herbal mixtures, or breastfeeding was delayed until older relatives or traditional attendants gave their approval (Oputa-Uzoukwu *et al*., 2025).

Table 2: Traditional Beliefs about Breastfeeding Practice

Question	Yes (n/%)	No (n/%)
Traditional beliefs about breastfeeding exist?	56 (40.0%)	84 (60.0%)
Colostrum considered harmful?	60 (30.7%)	80 (57.1%)
Water/herbal medicine given to newborns?	36 (26.0%)	104 (74.0%)

The influencers or determinants of the feeding decisions is as shown in table 3. From the result, 29(21%) of the respondents were influenced to the feeding practice by their Husbands, 71(51.3%) by father/mother's-in-law, 31(22%) by Health Worker, 6(4%) from religious leaders and lastly 3(2.5%) from other sources. It was also observed that, majority of the respondents that attended antenatal clinics had information on EBF and appropriate information from health workers which in turn enhances their EBF practice. (Desevo *et al*., 2013) and (Tiras and Sia 2013) showed that EBF was significantly associated with the place of delivery.

Family approval can support EBF, and likewise lack of family or social support can hinder it (Anazonwu *et al*., 2018). Several studies have identified family support as a positive factor; encouragement from family and friends significantly predicts successful EBF. Similarly, Oputa-Uzoukwu *et al*., (2025) emphasized the critical role of spousal support in promoting breastfeeding. Another research by (Anazonwu *et al*., 2018).

Conversely, highlights family dynamics as barriers; family approval can support EBF, and the lack of family or social support can hinder it.

Table 3: Influencers of Feeding Decisions

Influencer	Frequency	Percentage
Husband	29	21.0%
Mother/Mother-in-law	64	51.3%
Health worker	31	22.0%
Religious leader	6	4.0%
Others	3	2.5%
Total	133	100%

Source: Primary data

The table 4 below provide the result of EBF practice in the society, an estimate of 110(79.3%) practice EBF while 30(21%) disagree with it. Despite strong evidences in support of EBF for the first six months of life. According to World Health Organization (2017), the practice of EBF has remained low in Nigeria and keeps reducing with age. Studies showed that, 83% of the children are breastfed up to one year, while 28% were breastfed up to two years. The 2018 Nigeria Demographic and Health Survey reported an EBF rate of 29% for the first six months of life. This remains significantly below the target of 50% set by the World Health Assembly to be achieved in 2025 and the Sustainable Development Goals target for 2030 (Adamu *et al*., 2022).

Table 4: Practice of Exclusive Breastfeeding

Practiced EBF?	Frequency	Percentage
Yes	103	79.3%
No	30	21.0%

Source: Primary data

The distribution of mothers according to the family supports of EBF were, 70(52%) having the highest percentage and Yes 63(48%) having lowest percentage. Those cultural/ religious leaders advised against EBF were, Yes 80(61.2%) and No 53(39.2%). While mothers whose Traditional birth attendants supported EBF were, No 67(51%) and Yes 66(49%) respectively. This is because significant people exert a substantial influence over the breastfeeding decisions (Lauwers and Swisher, 2016). Furthermore, the results of this study showed that majority of the mothers who delayed in initiating of breastfeeding were mothers who delivered through Caesarean section, when the baby or mother was sick and delayed in milk secretion, the mothers do not have much control over infant feeding decision making (Lauwers and Swisher, 2016).

Additionally, another study pointed out that family members' decisions and partners' knowledge of breastfeeding benefits are crucial, with insufficient support ultimately limiting EBF adherence (Oputa-Uzoukwu *et al*., 2025).

Table 5: Family and Community Support

Question	Yes (n/%)	No (n/%)
Family supports EBF?	66 (48%)	74 (52%)
Cultural/religious leaders advised against EBF?	85 (61.2%)	55 (39.2%)
Traditional birth attendants support EBF?	69 (49%)	71 (51%)

Source: Primary data

Table 6: Common challenges

Common challenges	Responses (%)
Pressure from relatives	(45%)
Need to resume work	(30%)
Perceived milk insufficiency	(25%)

Source: Primary data

The findings in table 6 indicated that mothers perceived the following barriers to exclusive breast feeding; work demand, insufficient breast milk, insufficient information about exclusive breastfeeding, baby refusing to breastfeed, mother or baby being sick, distance to work place, cultural beliefs, advice from relatives and friends and maintaining body structure.

CONCLUSION

Traditional beliefs and practices have a profound influence on exclusive breastfeeding practice among mothers, even among those who seek healthcare services in general hospitals. Understanding these cultural contexts is critical for healthcare providers, who must integrate culturally sensitive education and counseling into maternal and child health programs to improve EBF rates. Future interventions should not only target mothers but also engage key influencers like grandmothers, spouses, and community leaders to promote sustained behavior change.

Based on the findings and relevance of traditional beliefs influencing exclusive breastfeeding practices, the following recommendations are proposed:

i. Health workers and existing non-governmental organizations in the community should provide mothers with reliable and sufficient information on exclusive breastfeeding, since their influence is highly appreciated in the society.
ii. Husbands should provide needs for the family and support their wives in the practice, work place should have baby care centres, and breast milk bump should be at affordable and available price.
iii. Health workers should design and deliver breastfeeding education that respects local beliefs while addressing harmful traditional practices. Incorporating local languages, customs, and trusted community figures in these programs can improve acceptance.
iv. Community and Family Engagement for practicing exclusive breast feeding should be address by education campaigns which should not target only mothers but grandmothers and fathers and traditional birth attendants who are often key influencers in breastfeeding decisions should be included. Engaging them can foster a more supportive environment for exclusive breastfeeding.
v. Training of Healthcare Providers and Integration of Traditional Birth Attendants (TBAs) in Healthcare System by Healthcare professionals, this is make them identify and respectfully address traditional beliefs that may hinder exclusive breastfeeding.
vi. Policymakers should promote and fund breastfeeding-friendly initiatives at all levels of healthcare delivery,

ensuring that strategies to address cultural beliefs are included in maternal and child health policies.

REFERENCES

Adamu, A., Isezuo, K. O., Ali, M., Abubakar, F. I., Jiya, F. B., Ango, U. M. & Bello, M. M. (2022). Prevalence and factors influencing exclusive breastfeeding practice among nursing mothers: a prospective study in North-Western Nigeria. *Nigerian Journal of Basic and Clinical Sciences*, *19*(2), 139-144.

Adekunle, R. & Musa, T. (2023). Sampling Techniques in Health Research: A Practical Approach. *African Journal of Health Research*, 27(1), 55–67.

Adeyemi, T., Musa, A. & Garba, I. (2023). Cultural Influences on Maternal Health Practices in Northern Nigeria. *Nigerian Journal of Public Health, 38(2),* 112–124.

Amat Camacho N, Chara A, Briskin E, Pellecchia U, Kyi HA, de Rubeis ML, (2023). Promoting and supporting breastfeeding in a protracted emergency setting-Caregivers' and health workers' perceptions from North-East Nigeria. *Front Public Heal*; 11. https://www.frontiersin.org/articles/10.3389/fpubh.2023.1077068/full

Ameh, A. & Adewole, O. (2021). Traditional Beliefs and Infant Feeding Practices in Rural Nigeria. *African Health Sciences, 21(3),* 145-153.

Anaba, U. C., Johansson, E. W., Abegunde, D., Adoyi, G., Umar-Farouk, O., Abdu-Aguye, S. & Hutchinson, P. L. (2022). The role of maternal ideations on breastfeeding practices in northwestern Nigeria: A cross-section study. *International Breastfeeding Journal*, *17*(1), 63.

Anazonwu N.P, Nnama-Okechukwu C.U, Obasi-Igwe I. (2018). Attitude to and cultural determinants of exclusive breastfeeding among childbearing mothers in Nsukka urban area of Enugu State, Nigeria. *African Population Studies*; 32. Available from: http://aps.journals.ac.za/pub/article/view/1187

Darma, K. R., & Psycholoogy, M. E. E. (2017). Sociological Basis of Educational Inequality between Rural and Urban Areas of Kano State.

Eze, B. & Nwachukwu, O. (2020). Maternal Beliefs and Breastfeeding Practices in South-East Nigeria. *International Journal of Community Health, 25(1),* 67–75.

García, D., Brazal, S., Rodríguez, A., Prat, A., & Vassena, R. (2018). Knowledge of age related fertility decline in women: A systematic review. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, *230*, 109-118.

Ifedi, F. O., & Agu, C. F. (2020). Migration and security challenges in Zamfara State Nigeria, 2011-2020. *University of Nigeria Journal of Political Economy*, *11*(2), 462-479.

International Crisis Group (2020). Violence in Nigeria's North West: Rolling Back the Mayhem. Crisis Group Africa Report N°288, 18 May 2020 Page ii

Jean Simon, D., Jamali, Y., Olorunsaiye, C. Z., & Théodat, J. M. (2023). Knowledge of the ovulatory cycle and its determinants among women of childbearing age in Haiti: a population-based study using the 2016/2017 Haitian Demographic Health Survey. *BMC Women's Health*, *23*(1), 2.

Lauwers, J. and Swisher, A. (2016). Counseling the nursing mother: A lactation consultant's guide.

Liamputtong, P. (2012). *Infant feeding practices: A crosscultural perspective*. New York: Springer. Pp186-235.

McKinnon, A. (2021). Christians, Muslims and traditional worshippers in Nigeria: Estimating the relative proportions from eleven nationally representative social surveys. *Review of religious research*, *63*(2), 303-315.

Mohammed, I. S. (2018). Northern Nigeria's Northernisation Policy: A Review of its Politics, Controversy and the Reality. *Journal of Humanities and Cultural Studies*, *3*(5), 1-17.

National Bureau of Statistics (2019) Poverty Index Report. New Telegraph (2018). www.newtelegraphonline.com/2018/03/zamfarakillingfield.. . Retrieved July 19. 2018

Nasidi, N. A. & Wali, R.M. (2023). The Challenges of Girl-Child Education in Ungogo Local Government Area of Kano State in Nigeria on 1999-2019. *Journal of Humanities and Social Science (JHASS)*, 5(1), 27-36.

Ogunlade, T., Akinyemi, J. & Lawal, R. (2022). Socioeconomic Factors Influencing Exclusive Breastfeeding in Nigeria. *Health Promotion International, 39(1),* 30–42.

Ogunlaja, A. O., Adeniran, A. S., Bakare, T. Y., Bobo, T., Ogunlaja, I. P., Oyaromode, A., Olayioye, P. O. (2024). Exclusive breastfeeding amongst mothers: Awareness and practice in Ogbomoso, South West Nigeria. *The Tropical Journal of Health Sciences*, *31*(1), 24-28.

Oladokun, T., Ajayi, M., & Olatunde, A. (2021). Traditional Practices and Exclusive Breastfeeding in Rural Southwestern Nigeria. *Health Promotion International*, 38(3), 112–119.

Okonkwo, C., Eze, B., & Chidiebere, N. (2020). Maternal Knowledge and Practices of Exclusive Breastfeeding in Nigeria. *Nigerian Journal of Child Health*, 23(2), 103–111.

Oputa-Uzoukwu, U. F., & Joseph, F. I. (2026). Exclusive breastfeeding practices and challenges in Nigeria, Sub-Saharan Africa: an integrative review. *International Breastfeeding Journal*.

Osterman, M. J., Hamilton, B. E., Martin, J. A., Driscoll, A. K., & Valenzuela, C. P. (2023). Births: final data for 2021.

Pal, L., & Santoro, N. (2003). Age-related decline in fertility. *Endocrinology and Metabolism Clinics*, *32*(3), 669-688.

Sahoo, S. (2016). Girls 'Education in India: Status and challenges. *International Journal of Research in Economics and Social Sciences (IJRESS)*, *6*(7), 130-141.

Sowjanya, A. R. (2023). *Impact of gender discrimination in education on social development of girls* (Doctoral dissertation, RPCAU, PUSA).

Stonawski, M., M. Potančoková, M. Cantele, and V. Skirbekk. (2016). The changing religious composition of

Nigeria: causes and implications of demographic divergence. *The Journal of Modern African Studies*. 54 (3): 361–387.

Tiras, E. N. and Sia, E. M. (2013). Prevalence and predictors of exclusive breastfeeding among women in Kigoma region, Western Tanzania (abstract) *East Afr. Med. J.*; 8(1).

United Nations Children Education Fund (2019). 39% of children in North-west, except Kaduna, are out of school. Available at: https://www.premiumtimesng.com/regional/nwest/348897-39-of-children-innorth-west-except-kaduna-are-out-of-school-unicef.html.

World Health Organization. (2021). Infant and Young Child Feeding: Model Chapter for Textbooks. *Geneva*: WHO Press.

World Health Organization (2017). Nutrition; *Promoting Proper Feeding for Infants and Young Children*. http://www.who.int/ nutrition/topics/infantfeeding/en/.

Yahaya, J., & Ibrahim, S. M. M. (2016). Assessment of Mothers' Attitudes to Children Care and its Effect on Breast Feeding in Nutrition Units of Shinkafi Local Government Zamfara State Nigeria. *Assessment*, *24*.

De sevo, M. (2013). Maternal and newborn success, Q & A review applying critical thinking to test taking.S.l: Philadelphia, F.A. Davis, and Vol. 5.

Freire, W. Nutrition and an active life from knowledge to action. Washington, D.C., Pan American Health Organization, Regional Office of the World Health Organization: 46. Nutrition and an active life from knowledge to action. Washington, D.C.: Pan American Health Organization, 2005.

UNICEF (2018). The Breastfeeding Paradox. Accessed March, 2022. https://www.unicef-irc.org/article/1790-the-breastfeeding-paradox.html