



Abubakar Musa^{1,*}, Usman Abba², Hassana Musa Gotomo³, Muhammad Umar Ibrahim⁴

¹Department of Community Medicine, Abubakar Tafawa Balewa University/ University Teaching Hospital, Bauchi – Nigeria

²Ministry of Health, Damaturu, Yobe State – Nigeria

³Kebbi State Primary Health Care Development Agency, Niger State – Nigeria

⁴Department of Community Medicine, Abubakar Tafawa Balewa University Teaching Hospital, Bauchi – Nigeria

*Corresponding author: amusa2@atbu.edu.ng

Abstract

Introduction: Exclusive breastfeeding (EBF) for the first six months of life is a globally recommended infant feeding practice due to its significant health benefits for both the child and the mother. However, despite ongoing public health campaigns, adherence remains low in Nigeria. This study assessed the knowledge, attitude, and practice of exclusive breastfeeding among breastfeeding mothers attending the child welfare clinic at Abubakar Tafawa Balewa University Teaching Hospital (ATBUTH), Bauchi. **Methods:** A descriptive cross-sectional study was conducted among 178 breastfeeding mothers using systematic sampling. Data were collected with a pre-tested, semi-structured interviewer-administered questionnaire and analyzed with SPSS version 25.0 using descriptive statistics. **Results:** The study found that 35.4% of mothers had good knowledge of EBF, 38.2% had a positive attitude, and 28.1% practiced EBF for six months. **Conclusion:** This study reveals significant gaps in the knowledge, attitude, and practice of EBF among mothers at ATBUTH. To improve adherence, multi-level interventions are urgently needed, including intensified health worker-led counseling, community education programs, and the implementation of supportive workplace and policy frameworks.

Keywords: Knowledge, Attitude, Practice, Exclusive Breastfeeding, Bauchi

© Trans-Saharan Publishers 2025. This is an Open Access article distributed under the terms of the Creative Commons Attribution licence ([CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)), which permits unrestricted re-use, provided the original work is properly cited. DOI: [10.5281/zenodo.1781129](https://doi.org/10.5281/zenodo.1781129)

Received: Oct 25, 2025 Revised: Nov 14, 2025 Accepted: Nov 30, 2025

Introduction

Exclusive breastfeeding (EBF) refers to the practice of feeding infants only breast milk for the first six months of life, with no other food or liquid, not even water (Agho et al., 2013). This practice is critical for infant survival, growth, and development, providing optimal nutrition and protection against infections such as diarrhea and pneumonia (Kearney, 2011). Despite its known benefits, the prevalence of EBF in Nigeria remains suboptimal, with various factors influencing its practice, including socio-cultural beliefs, maternal education, health-

care support, and economic constraints (Oche et al., 2015). In Bauchi State, the rates of EBF are particularly low, prompting a need for targeted interventions.

Breastfeeding is universally acknowledged as the natural and optimal method of feeding infants, especially in the early months of life. Exclusive breastfeeding for the first six months provides infants with all the essential nutrients, supports brain development, strengthens the immune system, and significantly lowers the risk of morbidity and mortality from infectious diseases such as diarrhea and

pneumonia (Singh, 2014). Beyond infancy, EBF lays the foundation for lifelong health, reducing the risk of chronic diseases such as obesity, type 2 diabetes, and cardiovascular disorders later in life (World Health Organization, 2003). The World Health Organization (WHO) and UNICEF strongly recommend EBF due to its proven benefits for both child and maternal health (Abdullahi & Ibrahim, 2020).

Despite these recommendations, the prevalence of EBF remains suboptimal globally, particularly in low- and middle-income countries. In Nigeria, only 29% of infants under six months are exclusively breastfed, according to the 2018 Nigeria Demographic and Health Survey (Abubakar & Bako, 2022). Rates are even lower in northern regions, such as Bauchi State, where a complex interplay of socio-cultural beliefs, maternal employment, low health literacy, and inadequate social support act as significant barriers (Afolabi & Ojo, 2019).

In these settings, cultural practices often lead to the early introduction of water, herbal concoctions, or other foods, based on the misconception that breast milk alone is insufficient, especially in hot climates (Ajibade & et al., 2013). While health institutions like the Abubakar Tafawa Balewa University Teaching Hospital (ATBUTH) serve as key points for educating mothers, knowledge does not always translate into positive attitudes or practice (Bassey et al., 2019). Assessing the current levels of knowledge, attitude, and practice (KAP) is therefore essential for designing effective interventions. However, recent KAP data specific to mothers attending the Child Welfare Clinic at ATBUTH is lacking.

Therefore, this study aimed to assess the knowledge, attitude, and practice of exclusive breastfeeding and identify the existing gaps among breastfeeding mothers attending the Child Welfare Clinic at ATBUTH, Bauchi.

Methods

Study Design and Setting

A descriptive cross-sectional study was conducted at the Child Welfare Clinic of Abubakar Tafawa Balewa University Teaching Hospital (ATBUTH), Bauchi.

Population and Sampling

The study population comprised breastfeeding mothers with infants aged 0–6 months attending the clinic during the data collection period. Mothers who were sick or unavailable were excluded. The sample size was calculated as 178 using Cochran's formula. A systematic random sampling technique was employed to select participants.

Data Collection

Data were collected using a pre-tested, semi-structured questionnaire administered by trained research assistants. The questionnaire was pre-tested for clarity and validity and contained four sections: socio-demographic characteristics, knowledge, attitude, and practice of exclusive breastfeeding (EBF).

Data Analysis

Data were analyzed using SPSS version 25.0. Descriptive statistics, including frequencies and percentages, were used to summarize the variables.

Ethical Considerations

Ethical approval was obtained from the Health Research Ethics Committee of ATBUTH. Informed consent was obtained from all participants, and confidentiality was maintained throughout the research process.

Results

A total of 178 questionnaires were administered, achieving a 100% response rate. The socio-demographic characteristics of the respondents are summarized in Supplementary Table 1. The majority of respondents were aged 26–35 years (42.6%), married (50.5%), and had secondary or tertiary education (58.3%). Over half of the respondents were unemployed (60.6%).

Table 1: Socio-Demographic Characteristics of Respondents (n = 178)

Variables	Frequency	Percentage (%)
Age		
18–25 years	53	29.7
26–35 years	76	42.6
36 years and above	49	27.5
Marital Status		
Married	90	50.5
Single	44	24.8
Widowed	26	14.6
Divorced	18	10.1
Education		
Non-formal	34	19.1
Primary	40	22.4
Secondary	54	30.3
Tertiary	50	28.0
Employment		
Employed	70	39.3
Unemployed	108	60.6

The assessment of exclusive breastfeeding revealed poor outcomes among the respondents. As shown in Supplementary Table 2, only 63 (35.4%) mothers had good knowledge of EBF. Similarly, 68 (38.2%) demonstrated a positive attitude towards EBF. Regarding practice, only 50 (28.1%) mothers reported good practice of exclusive breastfeeding for six months.

Table 2: Knowledge, Attitude, and Practice of Respondents Toward Exclusive Breastfeeding (n = 178)

Variables	Frequency	Percentage (%)
Knowledge		
Poor knowledge	115	64.6
Good knowledge	63	35.4
Attitude		
Poor attitude	110	61.8
Good attitude	68	38.2
Practice		
Poor practice	128	71.9
Good practice	50	28.1

Discussion

This study assessed the knowledge, attitude, and practice of exclusive breastfeeding among mothers at ATBUTH, Bauchi. The findings indicate poor levels of KAP, with only 35.4% demonstrating good knowledge, 38.2% a positive attitude, and 28.1% good practice of EBF.

Knowledge of EBF

The low level of knowledge found in this study is concerning, especially within a tertiary hospital setting. This could be attributed to time constraints during antenatal visits, the high patient-to-staff ratio limiting personalized counseling, and potential communication barriers. Our finding is consistent with studies in Northern Nigeria, such as in Kano, where only 36% of mothers could correctly define EBF (Abubakar & Bako, 2022). This suggests a regional challenge in effectively disseminating EBF information.

Attitude Towards EBF

The unfavorable attitude held by the majority of mothers appears to be shaped by deep-rooted socio-cultural norms. Common misconceptions included the belief that breast milk is insufficient for infant growth and that water is necessary in hot weather. These perceptions, often reinforced by family elders, create a significant barrier that health messages alone cannot easily overcome, as also reported in studies from Misau LGA, Bauchi State (Abubakar & Bako, 2022).

Practice of EBF

The practice rate of 28.1% is lower than the already suboptimal national average of 29% (Oche et al., 2015). This gap between knowledge and practice highlights the influence of non-knowledge factors. Key barriers identified include familial pressure to introduce other feeds, maternal employment, and inadequate postnatal support systems. This aligns with findings from Katagum LGA, Bauchi, where similar traditional practices and economic pressures were reported (Ajibade & et al., 2013).

Implications for Policy and Practice

There is a need for multi-faceted interventions. These should include repeated, culturally sensitive counseling during and after pregnancy, community

engagement programs to involve family decision-makers, and advocacy for policies that support breastfeeding mothers, such as extended maternity leave and workplace breastfeeding facilities.

Limitations of the Study

This study is limited by its hospital-based design, which may not be generalizable to the wider community. Furthermore, the reliance on self-reported practices is susceptible to social desirability bias. Future research should consider community-based longitudinal studies to better understand the deter-

minants of EBF practice.

Conclusion

This study found low knowledge, unfavorable attitudes, and poor practice of exclusive breastfeeding among mothers at ATBUTH. To bridge this gap, continuous community education, supportive workplace policies, and sustained health worker-led counseling are essential to improve adherence to WHO breastfeeding recommendations in Bauchi State.

References

Abdullahi, M., & Ibrahim, H. (2020). Knowledge of tetanus toxoid among pregnant women in kano state. *Nigerian Journal of Public Health*, 5(2), 94–99.

Abubakar, A., & Bako, A. H. (2022). Determinants of exclusive breastfeeding in bauchi state: A cross-sectional study. *African Journal of Reproductive Health*, 26(4), 112–120.

Afolabi, A., & Ojo, A. (2019). Health attitudes and immunization uptake in nigeria. *Nigerian Medical Journal*, 60(4), 211–216.

Agho, K. E., Dibley, M. J., O'Rourke, K., & et al. (2013). Factors associated with exclusive breastfeeding in indonesia: A national cross-sectional study. *BMC Public Health*, 13, 1–10.

Ajibade, B. L., & et al. (2013). Mothers' knowledge, attitude and practice of exclusive breastfeeding in lagos. *Journal of Health and Medical Nursing*, 1, 1–6.

Bassey, G., Akpan, S., & Ogbuagu, C. (2019). Determinants of tetanus toxoid immunization among women in nigeria. *African Journal of Medical and Health Sciences*, 18(2), 112–117.

Kearney, G. (2011). *Data collection methods for research: A guide for beginners*. Oxford University Press.

Oche, M., Aigbiremolen, A., & Mohammed, S. (2015). Exclusive breastfeeding practices in northern nigeria: A review. *Nigerian Medical Journal*, 56(5), 341–346.

Singh, M. (2014). *Infant and young child feeding: A guide for primary care* (2nd). Jaypee Brothers.

World Health Organization. (2003). *Global strategy for infant and young child feeding* (tech. rep.). Geneva.