

Analysis of Health Benefits Associated with Exclusive Breastfeeding Among Lactating Mothers in Maiduguri Metropolis, Borno State, Nigeria for Sustainable National Development

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Abstract

Exclusive breastfeeding, which involves feeding an infant only breast milk for the first 6 months of life, offers numerous health benefits for both the baby and the breastfeeding mother. Despite the well-established advantages, global rates of exclusive breastfeeding remain lower than ideal, and this is also the case in Maiduguri Metropolis, Borno State, Nigeria. This study aims to explore the health benefits of exclusive breastfeeding for lactating mothers in Maiduguri Metropolis. A total of 150 mothers who have given birth to live infants under 6 months old were selected as participants using purposive and simple random sampling methods for the research. The primary data were obtained using structured questionnaire that were administered to 150 lactating mothers in the study area while secondary information was obtained from journals, textbooks, internet, conference papers, etc. The analytical tools that were employed for this study include descriptive statistics and 5-point Likert-type scale. A study investigating the health benefits associated with exclusive breastfeeding among lactating mothers is expected to yield compelling results, shedding light on the positive impacts of this practice on maternal and infant health outcomes.

Keywords: Breastfeeding, infant, lactating mothers, breastfeeding mother, health benefits

INTRODUCTION

Breastfeeding, particularly exclusive breastfeeding (EBF), plays a vital role in enhancing the nutritional status and survival rates of infants globally. Malnutrition is responsible for around 60% of the 10.9 million deaths each year among children under the age of 5 years. Feeding practices during infancy and early childhood significantly affect a child's nutritional health, with improper feeding linked to approximately 40% of deaths in children under 2 years old [1–4].

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Received Date: December 19, 2024

Accepted Date: January 16, 2025

Published Date: January 30, 2025

Citation: Idris Alhaji Haruna. Analysis of Health Benefits Associated with Exclusive Breastfeeding Among Lactating Mothers in Maiduguri Metropolis, Borno State, Nigeria for Sustainable National Development. *International Journal of Women's Health Nursing and Practices*. 2025; 3(1): 1–8p.

The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) advocate that all mothers should exclusively breastfeed their infants for the first 6 months and continue breastfeeding for as long as mutually desired by the mother and child. At 6 months, complementary feeding should be introduced alongside breast milk to meet the child's growing nutritional needs. Both UNICEF and WHO highlight that breastfeeding is essential for achieving several Sustainable Development Goals (SDGs), including: SDG 2 (ending hunger and improving nutrition), SDG 3 (reducing child

mortality and preventing non-communicable diseases), and SDG 4 (promoting cognitive development and education). Furthermore, breastfeeding contributes to eradicating poverty, stimulating economic growth, and reducing inequalities. Although appropriate feeding practices are considered one of the most cost-effective strategies to reduce child morbidity and mortality, the rate of exclusive breastfeeding remains low in many developing countries. Of the approximately 56 million infants under 6 months of age in these regions, only about 22 million are exclusively breastfed, leaving over 34 million (60.7%) without this benefit. Notably, 80% of the infants who miss out on exclusive breastfeeding in developing countries are concentrated in just 29 nations. There was dearth of information on health benefits associated with breastfeeding among lactating mothers in the study area. This study thus examines the health benefits associated with breastfeeding among lactating mothers in Maiduguri Metropolis, Borno State, Nigeria to bridge the gap in existing literature in the study area [5–9].

Exclusive breastfeeding is the practice of feeding an infant solely with breast milk for the first (6) 6 months of life and is known to confer numerous health benefits for both the infant and the lactating mother. However, despite these well-documented advantages, exclusive breastfeeding rates remain suboptimal worldwide and Maiduguri Metropolis, Borno State, Nigeria inclusive. Earlier studies reveal several challenges and barriers that can hinder the health benefits of exclusive breastfeeding among lactating mothers. Maternal employment has been recognized as a key factor that impacts breastfeeding practices. Studies have found that returning to work soon after childbirth is associated with shorter duration of exclusive breastfeeding due to difficulties in balancing work responsibilities with breastfeeding demands. Additionally, lack of workplace support, such as inadequate maternity leave policies and limited access to lactation breaks and private pumping spaces, further undermines exclusive breastfeeding among working mothers. Socioeconomic factors also play a role, with lower-income mothers facing greater barriers to exclusive breastfeeding due to limited access to healthcare services, lack of breastfeeding education, and financial constraints. Moreover, cultural beliefs and societal norms regarding breastfeeding practices can influence maternal attitudes and behaviours, with formula feeding often perceived as more socially acceptable in certain communities. These challenges highlight the multifaceted nature of exclusive breastfeeding promotion, necessitating targeted interventions that address individual, interpersonal, and structural barriers to optimize maternal and infant health outcomes in the study area [10–14].

Investigating the health benefits associated with exclusive breast feeding among lactating mothers in the study area, this study seeks to contribute to the existing body of knowledge on exclusive breastfeeding, providing insights into its health benefits for lactating mothers and informing strategies for improving breastfeeding rates. This study thus examines the health benefits associated with exclusive breast feeding among lactating mothers in the study area [15].

OBJECTIVE OF THE STUDY

The main objective of the study was to examine the health benefits associated with breastfeeding among lactating mothers in Maiduguri Metropolis, Borno State, Nigeria. The specific objectives are to:

1. Examine the socioeconomic characteristics of the lactating mothers in study area;
2. Examine the extent of exclusive breastfeeding practice by the lactating mothers in study area; and
3. Identify the health benefits associated with the practice of breastfeeding among lactating mothers in the study area.

METHODOLOGY

The study employed survey research design and used structured questionnaire to collect data during the survey process.

Sampling Techniques and Population for the Study

A purposive sampling method was employed to choose 150 mothers who have given birth to live infants aged 6months or younger to participate in the study. This method was used because the

population of the study is not always geographically dispersed. The sample size for this study was determined following Yamane (1967). The formula is expressed as:

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

where:

n = sample size

N = population size (sample frame)

e = level of significance = 5%

1 = constant

The sample size used for this study was 150 respondents. A sample size of 150 is adequate and was used for this study.

Sources of Data Collection

The primary data were obtained using structured questionnaire that were administered to 150 lactating mothers in the study area while secondary information was obtained from journals, textbooks, internet, conference papers, etc. Data were collected on socioeconomic characteristics of the lactating mothers; extent of exclusive breastfeeding practice by the lactating mothers; and health benefits associated with the practice of exclusive breastfeeding among lactating mothers in the study area.

Method of Data Collection

An ethical approval was obtained from the management of the Borno State Specialist Hospital Maiduguri before the data collection. A total of 150 lactating mothers were selected over a period of 1 week using simple random sampling and purposive sampling techniques and used for the analysis. Informed consent was obtained from the lactating mothers after providing them with a clear explanation of the study's purpose and objectives. The questionnaires were distributed directly to the literate mothers, while for those who are illiterate, the questions were explained to them to help them select the appropriate responses [16–18].

Analytical Techniques

The analytical tools that were employed for this study include descriptive statistics and 5-point Likert-type scale. The descriptive statistics that were employed for this study include frequency and percentage. These were used to organize, summarize, and analyse the data. The 5-point Likert-type scale was also used in this study [19, 20].

The keys to the Likert-type scale are as follows: 1 = strongly disagreed; 2 = disagreed; 3 = undecided; 4 = agreed; and 5 = strongly agreed.

RESULTS AND DISCUSSION

Socioeconomic Characteristics of the Lactating Mothers

The socioeconomic characteristics of the lactating mothers were examined with respect to their age, educational level and place of birth, number of children, monthly income and major occupation. The findings are presented in Table 1. The result indicates that most 28% of the lactating mothers were within 21- to 24-year group age, another 28% were within 25 to 30 years while 12% were 36 years and older in the study area. This shows that most of the lactating mothers were in their youthful age in the study area.

Table 1 further shows that 40% of the lactating mothers had SSCE (Senior School Certificate Examination) while 8% had NCE (Nigeria Certificate in Education) and another 8% had BSc and HND (Higher National Diploma) as their educational level in the study area. The finding indicates that most of the lactating mothers were literates in the study area. The result also reveals that 56% of the lactating mothers said they delivered their babies at public hospitals, 28% delivered at traditional birth attendants'

place while 16% delivered babies at private hospitals in the study area. This shows that most of the lactating mothers delivered babies at the hospitals in the study area. This could probably due to the fact that most of the lactating mothers were literates having attended one form of education or the other.

The results further shows that most 52% of the lactating mothers had 2 to 4 children while 16% had less than 2 children in the study area. This shows that most of the lactating mothers had reasonable number of children in the study area. The finding indicates that 60% of the lactating mothers earned between ₦20,000 to 30,000 income monthly while 20% earned less than ₦20,000 monthly in the study area. This indicates that most of the lactating mothers earned reasonable income which enabled them to access health care facilities in the study area. The finding also indicates that most (68%) of the lactating mothers were business women while 12% were engaged in private businesses in the study area. This indicates that most of the of the lactating mothers were business women who earn reasonable income that enable them access health care facilities in the study area.

Table 1. Socioeconomic characteristics of the lactating mothers.

Socioeconomic Variables	Frequency	Percentage
<i>Age (years):</i>		
17–20	24	16
21–24	42	28
25–30	42	28
31–35	24	16
≥36	18	12
Total	150	100
<i>Educational level:</i>		
No formal education	42	28
SSCE	60	40
Diploma	24	16
NCE	12	8
BSc/HND	12	8
Total	150	100
<i>Place of delivery:</i>		
Private hospital	24	16
Traditional birth attendants	42	28
Public hospital	84	56
Total	150	100
<i>Number of children:</i>		
<2	24	16
2–4	78	52
>4	48	32
Total	150	100
<i>Monthly income:</i>		
<20,000	30	20
20,000–30,000	90	60
≥35,000	30	20
Total	150	100
<i>Major occupation:</i>		
Civil servant	30	20
Business	102	68
Private job	18	12
Total	150	100

Source: Field survey, 2022.

The Extent of Exclusive Breastfeeding Practice Among Lactating Mothers

The extent of exclusive breastfeeding practice among lactating mothers was examined using the 5-point Likert-type scale and the results are presented in Table 2. The results in Table 2 reveal that 48% of the lactating mothers strongly agreed that they stopped breastfeeding after 6 months while 36% stopped breastfeeding before 6 months in the study area. The finding also shows that 56% of the lactating mothers strongly agreed that they practice only breastfeeding while 68% mixed breastfeeding and formula in the study area. The result further shows that 44% of lactating mothers strongly disagreed that their husbands support breastfeeding and formula while 44% said their husbands do not support breastfeeding and formula in the study area. Analysis of the finding indicates that most (84%) of the lactating mothers strongly agreed that breastfeeding was pleasurable while 76% strongly disagreed. The finding indicates that 68% of the lactating mothers strongly disagreed that their husbands reject exclusive breastfeeding 60% strongly agreed that their husbands support exclusive breastfeeding in the study area.

Health Benefits Associated with Breastfeeding Practice of Among Lactating Mothers

The health benefits associated with breast feeding practice was examined using the 5-point Likert-type scale and the results are presented in Table 3. The results in Table 3 further indicate that most 76% of the lactating mothers strongly agreed that breastfeeding provides natural immunity for babies while 36% strongly agreed that breastfeeding helps mothers lose weight after pregnancy in the study area. The results reveal that 60% of lactating mothers strongly agreed that breastfeeding helps the uterus return to its pre-pregnancy state more quickly, while 76% strongly agreed that breastfeeding fosters a closer bond between mother and infant. Additionally, the findings in Table 3 show that 40% of the mothers strongly agreed that breastfeeding serves as a form of child spacing, and 60% strongly agreed that breastfeeding mothers typically have healthier babies. Furthermore, 48% of the lactating mothers strongly agreed that breastfeeding leads to fewer absences from work, as they do not need to stay home as often due to their children's better health. Lastly, 56% of the mothers strongly agreed that breastfeeding helps reduce the occurrence of postpartum bleeding. The result further reveals that 48% of the lactating mothers strongly agreed that breastfeeding reduces maternal obesity by an earlier return to pre-pregnancy weight while 52% strongly agreed that breastfeeding mothers are less likely to develop depressive symptoms.

Table 2. Distribution of extent of exclusive breastfeeding practice among lactating mothers.

Questions	Strongly Disagreed (1)	Disagreed (2)	Undecided (3)	Agreed (4)	Strongly Agreed (5)	Total
I stopped breastfeeding after 6 months.	48 (32)	24 (16)	0 (00)	6 (4)	72 (48)	150 (100)
I stopped breastfeeding before 6 months.	78 (52)	12 (8)	0 (00)	6 (4)	54 (36)	150 (100)
I practice breastfeeding only.	42 (28)	0 (00)	12 (8)	12 (8)	84 (56)	150 (100)
I mix breastfeeding and formula.	102 (68)	6 (4)	0 (00)	0 (00)	42 (28)	150 (100)
My husband supports breastfeeding and formula	66 (44)	18 (12)	12 (8)	6(4)	48(32)	150 (100)
My husband does not support breastfeeding and formula	42 (28)	18(12)	12 (8)	12 (8)	66 (44)	150 (100)
Breastfeeding is pleasurable	0 (00)	6 (4)	6 (4)	12 (8)	126 (84)	150 (100)
Breastfeeding is not pleasurable	114 (76)	18 (12)	0 (00)	12 (8)	6 (4)	150 (100)
My husband rejects exclusive breastfeeding	102 (68)	12 (8)	18 (12)	18 (12)	0 (00)	150 (100)
My husband supports exclusive breastfeeding	12 (8)	12 (8)	12 (8)	24 (16)	90 (60)	150 (100)

Source: Field survey, 2022, figures in parentheses represents percentage of lactating mothers

Table 3. Distribution of health benefits associated with exclusive breastfeeding practice.

Questions	Strongly Disagreed (1)	Disagreed (2)	Undecided (3)	Agreed (4)	Strongly Agreed (5)	Total
Breastfeeding provides natural immunity for babies	6 (4)	6 (4)	12 (8)	12 (8)	114 (76)	150 (100)
Breastfeeding helps mothers to lose weight after pregnancy	18 (12)	36 (24)	30 (20)	12 (8)	54 (36)	150 (100)
Breastfeeding helps the uterus to return to its pre-pregnancy state more quickly	0 (00)	6 (4)	6 (4)	48 (32)	90 (60)	150 (100)
Breastfeeding enhance intimacy between mother and infant	0 (00)	6 (4)	0 (00)	30 (20)	114 (76)	150 (100)
Breastfeeding is a form of child spacing	18 (12)	18 (12)	54 (36)	0 (00)	60 (40)	150 (100)
Breastfeeding mothers always have healthy babies	0 (00)	12 (8)	18 (12)	30 (20)	90 (60)	150 (100)
Breastfeeding mothers have less absence from work because they do not have to stay home as frequently because their children are healthier	6 (4)	24 (16)	36 (24)	12 (8)	72 (48)	150 (100)
Breastfeeding reduces the incidences of postpartum bleeding	6 (4)	0 (00)	18 (12)	42 (28)	84 (56)	150 (100)
Breastfeeding reduces maternal obesity by an earlier return to pre-pregnancy weight	0 (00)	0 (00)	48 (32)	30 (20)	72 (48)	150(100)
Breastfeeding mothers are less likely to develop depressive symptoms	0 (00)	6 (4)	24 (16)	42 (28)	78 (52)	150 (100)

Source: Field survey, 2022; figures in parentheses represents percentage of lactating mothers.

CONCLUSION

In Nigeria, the rate of exclusive breastfeeding for infants under 6 months is among the lowest globally, even when compared to neighbouring countries in the region. This study concludes that most of the lactating mothers practice exclusive breastfeeding but the number is not high; exclusive breastfeeding is still low in the study area. The socioeconomic variable shows that most of the lactating mothers were in their youthful child-bearing age and were probably not adequately informed about exclusive breastfeeding.

The study also concludes that most of the lactating mothers were literates and seems educational attainment might not be a determinant of the practice of exclusive breastfeeding and does not preclude the fact that education still remains the most viable means of reaching everybody on the health benefits of breastfeeding. Although most of the lactating mothers considered for the study were lower income earners or business women, the business conditions might not have discouraged exclusive breastfeeding, as most of the lactating mothers practice exclusive breastfeeding in the study area. The study also revealed most of the lactating mothers strongly agreed that breastfeeding was pleasurable. The study further indicates that most of the lactating mothers strongly agreed that breastfeeding provides natural immunity as health benefits of breastfeeding practices for babies.

Recommendations

The following recommendations were made based on the findings of this study:

1. The Borno State government hospital, private health centres and non-governmental organizations (NGOs) should provide incentives to encourage lactating mothers to practice exclusive breastfeeding in the study area.

2. The awareness campaign on exclusive breastfeeding practice should be intensified across the State.

There is also need for policy makers and the Borno State Government officials to formulate policies and programs towards enhancing the practice of exclusive breastfeeding in the study area.

Value Added to Knowledge

The study contributes valuable insights into the socioeconomic factors that influence breastfeeding practices in a predominantly agrarian region like Maiduguri. By identifying the benefits and challenges of exclusive breastfeeding in this area, it adds to the existing body of knowledge on maternal and child health in developing countries. Additionally, it offers practical recommendations for policy-makers and health organizations to promote exclusive breastfeeding, which can reduce infant morbidity and mortality in regions where these rates are high. The findings also highlight the need for intensified awareness campaigns and incentives to encourage breastfeeding practices.

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