

Breastfeeding Practices amongst Mothers of Dobi, a Rural Community in Abuja

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Abstract

Introduction: Infant feeding is an important determinant of a child's well-being. Several studies have been carried out to determine infant feeding and weaning practices around the world, there is however a dearth of information about this in the FCT, Abuja. The World Health Organization (WHO) recommends that infants be exclusively breastfed for the first six months, followed by breastfeeding along with complementary foods for up to two years of age or beyond

Aim: This study aimed to determine the infant feeding practices of mothers in dobi community, Gwagwalada area council in the FCT, Abuja.

Methodology: This was a descriptive cross-sectional study, participants were selected using a multistage/cluster sampling technique from Dobi community which is located in Gwagwalada area council of the Federal Capital Territory.

Results: Two hundred women participated in this study, 61% of them were within the age group of 15-24, they had the mean age of 24.1 ± 16 standard deviation. Most of them 63.5% commenced breastfeeding within 1 hour of delivery. Although 98.5% agreed that breast milk was important, only 45% of respondents practiced exclusive breastfeeding; their main reasons were that they did not

believe in exclusive breast feeding (38.5%) and that baby needed water (9.5%). Level of education significantly influenced the practice of exclusive breastfeeding (p value= 0.00 and 0.028 respectively). Spouses' support also significantly influenced exclusive breastfeeding (p=0.03).

Conclusion: The practice of exclusive breast feeding is still low, despite the high level of sensitization about the importance of practicing exclusive breastfeeding. Cultural and personal beliefs play important role in influencing the choice to practice exclusively breastfeed infants.

Keywords: Breastfeeding, practices, Dobi Hypothesis; there is no difference in breastfeeding practices amongst the mothers of Dobi

1.0 Introduction

Infant feeding evolved into wet nursing, the feeding bottle and formula feeds, before the invention of feeding bottles and formula, wet nursing was about the safest and the most common alternative.^[1] Changes occurred in formula feeding and the availability of animal's milk gradually led to the substitution of formula feeding for wet nursing.^[1] Nevertheless, throughout the history of infant feeding, breastfeeding has remained the method medically preferred for infant feeding.^[1] Breastfeeding is the first food for a new-born infant that compares to non.^[2] It is

considered the most complete nutritional source for infants, because breast milk contains the major and essential nutrients such as fats, carbohydrates, proteins and immunological factors needed for infants to grow and develop adequately in the formative first year of life. ^[1] It has been the first priority of mothers to breast feed until later in infancy since prehistoric times, in the farming and Stone Age, people were believed to have raised their children the way other higher primates did, that is by breastfeeding them on demand for several years. ^[3] According to the World Health Organization (WHO) recommendations, infants be exclusively breastfed for the first six months, followed by breastfeeding along with complementary foods for up to two years of age or beyond. ^[4] A mother should nurse her child, but if maternal milk was not available for whatever reason, or it was of insufficient volume for the baby's requirements, the Babylonians, Greeks and Romans used to employ wet nurses. ^[5] When babies were artificially fed, evidence exists that a variety of cups and other utensils were used to do so. ^[6] It is necessary that infants receive adequate nutrition during infancy and early childhood. ^[7] Breastfeeding has well established benefits, especially the reduction of morbidity and mortality due to communicable diseases in childhood. ^[8] A pooled analysis of studies carried out in middle/ low resource settings showed that breastfeeding greatly lowers the risk of death from communicable diseases in the first two years of life. ^[9] Earlier on breastfeeding rates in 2010 were 83% in England, 74% in Scotland, 71% in Wales, and 64% in Northern Ireland, the incidence of breastfeeding increased between 2005 and 2010 in England, Scotland and Wales, but with no statistically significant increase in Northern Ireland. ^[10]

According to the Nigerian Demographic and Health Survey (NDHS), in 2008, 17% of children were exclusively breastfed for up-to 4 months, while 13% were exclusively breastfed for up to 6 months. ^[11,12]

1.1 Aim and Objective: The aim of this study was to determine the breastfeeding practices of mothers in Dobi community

2.0 Methodology

2.1 Study location

Dobi is a community located in Gwagwalada area council of the Federal Capital Territory Abuja, It is located at an elevation of 180 meters above sea level, and has a population of about 171,672, its coordinates are 9° 3' 0" N and 6° 58' 60" E^[13]. The inhabitants of this community are mostly of the Gbagyi tribe, who also speak Hausa as their second language, other minority ethnic groups also live in this community too. The two major religions practiced by the people are Islam and Christianity and majority of the people are farmers. There is only one primary health care facility which is owned by the University of Abuja and the University of Abuja Teaching Hospital in the community and several small private clinics and patent medicine stores.

2.2 Study Population

The study population consisted of mothers of children less than 5 years of age.

2.3 Study Design

The study design was a descriptive cross-sectional study. It assessed the prevalence of breastfeeding practice and factors that influenced it among the mothers of Dobi

2.4 Sample Size

With a sample population greater than 10,000, a 95% confidence level (1.96), an estimated value for prevalence of women practicing exclusive breastfeeding of 10.2%

(0.102) ^[14] and a precision value of 0.05 the sample size was calculated using the Leslie Kish formula ^[15]

$$n = Z^2pq/d^2$$

Where n = sample population, z = confidence level, p = prevalence value, q = 1-p and d = precision value.

$$n = (1.96 \times 1.96) \times 0.102 \times (1 - 0.102)$$

$$\frac{0.05 \times 0.05}{0.0025} = \frac{0.0025}{0.0025} = 140.92 \text{ respondents}$$

$$n = 3.8416 \times 0.102 \times 0.898 \quad 0.3523$$

$$\frac{0.0025}{0.0025} = \frac{0.0025}{0.0025} = 140.92 \text{ respondents}$$

The number was increased to 200 to make up for non-responses.

2.5 Sampling Technique

The participants were selected using a multistage sampling technique. Stage one was the selection of Dobi ward from the 10 wards in Gwagwalada area council. Stage two involved the selection of Dobi town out of the communities in Dobi ward by simple random sampling. Stage three involved the selection of a cluster of houses in Dobi town and the sampling of the children less than five years until the sample size was met.

Inclusion Criteria: Mothers who had children that is under five 5 years of age

Exclusion Criteria: Mothers who did not have children that were less than 5 years were excluded.

2.6 Data Collection Instrument

The instrument used for data collection was a semi structured, interviewer assisted questionnaire. The

questionnaire was divided into several sections which included:

Demographic information on the participants in terms of age, place of residence, marital status, type of family, parity, education, occupation, income, religion, and age of baby. The practice of exclusive breastfeeding, the methods of breastfeeding and spousal support in breastfeeding and information on the factors influencing infant feeding practices and illnesses associated with infant feeding.

2.7 Ethical Considerations

Ethical clearance was obtained from the Health Research Ethics Committee of the University of Abuja Teaching Hospital. Before the questionnaire was administered a detailed explanation of the purpose of the research was explained and consent gotten from the respondents

2.8 Data Analysis

Data was analysed using Statistical Program for Social Sciences (SPSS) version 21. Descriptive analysis was presented in frequency tables and chi square test was used to determine significance between variables.

3.0 Results

Two hundred mothers who had children aged less than 5 years were recruited for this study, they had the mean age of 24.1 ± 16 Standard deviation. 122 (61%) of the respondent were within the 15-24 age groups, 64 (32%) were in the age group 25-34 and 14 (7%) were in the age group 35-44. Respondents were from different states of the federation with the highest percentage of respondents 158 (79%) from the FCT, followed by 15% (7.5) from Nassarawa state and 6(3%) from Niger state. 143(71.5%) were in monogamous family settings, 20(10%) were in polygamous family settings and 37 (18.5%) were not in any family setting

3.1 Data On Sociodemographics

Variables	Groups	Frequency (%)
Age	15-24	122 (61.0)
	25-34	64 (32.0)
	35-44	14 (7.0)
	Total	200 (100.0)
State of origin	Abia	1 (.5)
	Akwa Ibom	2 (1.0)
	Anambra	3 (1.5)
	Benue	2 (1.0)
	Borno	1 (.5)
	Edo	1 (.5)
	Enugu	1 (.5)
	FCT	158 (79.0)
	Gombe	1 (.5)
	Kaduna	2 (1.0)
	Kogi	3 (1.5)
	Nassarawa	15 (7.5)
	Niger	6 (3.0)
	Plateau	2 (1.0)
Sokoto	2 (1.0)	
Total	200 (100.0)	
Religion	Christianity	83 (41.5)
	Islam	116 (58.0)
	Traditional	1 (0.5)
	Total	200 (100.0)
Level of Education	No formal education	59 (29.5)
	Primary	51(25.5)
	Secondary	72(36.0)
	Tertiary	18 (9.0)
	Total	200 (100.0)
Occupation	Housewife	58 (29.0)
	Self Employed	52 (26.0)

Farmer	49 (24.5)	
Student	25 (12.5)	
Civil servant	14 (7.0)	
Unemployed	2 (1.0)	
Total	200 (100.0)	
Marital Status	Single	37 (18.5)
	Married	150 (75.0)
	Widowed	8 (4.0)
	Divorced	5 (2.5)
Total	200 (100.0)	
Family Structure	Monogamous	143 (71.5)
	Polygamous	20 (10.0)
	None	37 (18.5)
	Total	200(100.0)

With respect to religion, 116 (58%) of respondents were Muslims, 83(41%) were Christians and 1(0.5%) practiced traditional religion.

Majority 72(36%) had secondary level of education while 18 (9%) had tertiary level of education. 58(29%) of mothers were housewives, 52(26%) were self-employed, 49(24.5%) were farmers, 25(12.5 %) were students, 14(7%) were civil servants and 2(1%) were unemployed. 37(18.5%) of respondents were single, 150(75%) were married, 8(4%) were widowed and 5(2.5%) were divorced.

3.2 Breastfeeding And Infant Feeding Methods

A number of questions were asked to determine the methods of infant feeding. These questions include initiation of breastfeeding after birth, practice of exclusive breastfeeding, among many others. The summary of these responses are given in the table below.

Table 2

3.2.1 When did you initiate Breastfeeding after birth?

Time	Frequency (%)
30 minutes	37 (18.5)
1 hour	127 (63.5)
>1 hour	36 (18.0)
Total	200 (100.0)

37(18.5%) mothers initiated breastfeeding within 30 minutes of delivery, 127(63.7%) initiated breastfeeding within 1 hour and 36(18%) commenced breastfeeding after 1 hour. (Table 2)

Table 3

3.2.2 Do you think breast milk is important for the baby

Response	Frequency (%)
Yes	197 (98.5)
No	3 (1.5)
Total	200 (100.0)

Majority 98.5%) of mothers responded that breast milk was important for the baby, while only 3(1.5%) responded that breast milk was not important for the baby (Table 3).

Table 4

3.2.3 Did you practice Exclusive Breastfeeding

Response	Frequency (%)
Yes	90 (45.0)
No	110 (55.0)
Total	200 (100.0)

When asked if a mother exclusively breast fed her infants, less than half 90(45%) of the respondents acknowledge that they practiced exclusive breastfeeding while greater

than 110(55%) responded that they did not practice exclusive breast feeding (Table 4)

Table 5

3.2.4 Why did you not exclusively Breastfeed

Reasons	Frequency (%)
Do not believe in exclusive breastfeeding	77 (70)
Baby needs water	19 (17.3)
Breast milk not enough for child	11 (10)
Not producing enough breast milk	1 (0.9)
Father did not consent	1(0.9)
Others	1 (0.9)
Exclusively breastfed	90 (100)
Grand Total	200 (100.0)

Reasons for not practicing exclusive breastfeeding were varied, majority 77(70%) of mothers stated that they did not believe in exclusive breastfeeding, 19(17%) said baby needed water and 11(10%) said breast milk was not enough to satisfy the baby’s hunger. 1(0.9%) each stated that they were not producing enough breast milk and that the father did not consent to exclusive breastfeeding, (Table 5)

3.2.5 Multivariate analysis of mother’s level of education and exclusive breastfeeding

Level of education	Baby exclusively breast fed		Total
	Yes (%)	No (%)	
No formal education	10 (16.9)	49 (83.1)	59 (100.0)
Primary	19 (37.3)	32 (62.7)	51 (100.0)
Secondary	48 (66.7)	24 (33.3)	72 (100.0)

Tertiary	13 (72.2)	5 (27.8)	18 (100.0)
Total	90 (45.0)	110 (55.0)	200 (100.0)

(P value= 0.000)

Multivariate analysis of mother’s level of education revealed that, 59(29.5%) of respondents had no formal education, 51(25.5 %) had primary level of education, 72(36%) had secondary level of education and 18(9%) had tertiary level of education. Mothers who had the highest level of education at tertiary level practiced exclusive breastfeeding the most 13(72.2%) followed by mothers with secondary level of education 48(66.7%), mothers with lowest level of education least practice exclusive breastfeeding

3.2.6 Multivariate analysis of mother’s religion and exclusive breastfeeding

Religion	Baby exclusively breastfed		Total (%)
	Yes (%)	No (%)	
Christianity	46 (55.4)	37 (44.6)	83 (100.0)
Islam	44 (37.9)	72 (62.1)	116 (100.0)
Traditional	0 (0.0)	1 (100.0)	1 (100.0)
Total	90 (45.0%)	110 (55.0%)	200 (100.0)

P value= 0.03

Multivariate analysis of mother’s religion with breastfeeding showed that 116(58%) of respondents were Muslims 83(41%) were Christians and 1(0.5%) practiced traditional religion. Those of the Christian religion (55.4%) practiced exclusive breastfeeding more than those of the other religious faith (37.8%)

3.2.7 Father’s support of breastfeeding and exclusive breastfeeding

Response	Baby exclusively breastfed		Total (%)
	Yes (%)	No (%)	
Yes	73 (62.9)	43 (37.1)	116 (100.0)
No	14 (18.9)	60 (81.1)	74 (100.0)
no response	3 (30.0)	7 (70.0)	10 (100.0)
Total	90 (45.0)	110 (55.0)	200 (100.0)

P value= 0.00

Spouse of the respondents were sampled to find out their opinions about breastfeeding, majority 115 (57.5%) of the respondents said exclusive breast feeding was important, 76(38.0%) said exclusive breastfeeding was not important and 9(4.5%) had no opinion. When asked if they supported their spouse decision to exclusively breastfeed, majority 116(58%) of the respondents affirmed positively to the question, while 74(37%) of the respondents said they will not support their wives to exclusively breastfeed and 10(5%) were indifferent. Results showed that fathers’ decision to support their spouses’ choice to breastfeed significantly influenced the practice of exclusive breastfeeding by mothers in this community.

Table 6

3.2.8 Wald Statistics

Variables	S.E.	X ²	Df	Sig.	Odd ratio	95% C.I.	
						Lower	Upper
Education	.335	4.948*	1	.026	2.107	1.093	4.062
Occupation	.385	.069	1	.793	1.106	.520	2.353
Religion	.692	3.479	1	.062	3.636	.936	14.114

The Wald statistics results show that among the three variables considered only mother’s education (X²= 4.948, p<0.05) significantly predicted breastfeeding. This means that mother’s education has significant effects on breastfeeding. Other predictor variables in the Wald statistics do not contribute significantly to the prediction of breastfeeding (p>0.05). Results of the Odd ratio (OR)

indicate that mother's education (**OR** = 2.107, 95% CI: 1.09, 4.06), mother's occupation (**OR** = 1.106, 95% CI: 0.52, 2.35) and mother's religion (**OR** = 3.636, 95% CI: 0.94, 14.11) have **Odds ratios** greater than 1. This means that these factors are at least one time and above likely to predict the practice of exclusive breastfeeding. Acharya and Khanal (2015) found maternal education to be associated with a higher likelihood of early initiation of breastfeeding. They further stated that education status of the mother is an important social determinant of health for children (Table 6)

4.0 DISCUSSION

In this study majority of the respondent were within the 15-24 age groups, this is in contrast to findings by Al Ketb MI et al, 2018^[16] where they reported higher age groups of 25-29 years (37.5%) that constituted the majority of the respondents. The lower age group in this study can be attributed to early marriage and by extension early onset of pregnancy and childbirth in the study area of Dobi.

With respect to breastfeeding 201(82.2%) initiated breastfeeding within 1 hour after the delivery of the baby while 36(18%) commenced breastfeeding after 1 hour of delivery. This is similar to previous studies carried out by Al Ketb MI et al, 2018^[16]

Majority of the respondents 197(98.5%) believe breast milk is important in terms of nutrition for their child, only a few 3(1.5%) said it is not important enough, this finding is similar to the findings by Sowmini P et al^[17] which identified that majority 181(96.3%) of the mothers felt that breast milk is healthy for their babies, while only 32 (17%) mothers agreed that breast milk protects babies from diseases. 90(45%) of respondents practiced exclusive

breastfeeding while 110(55%) did not, this result is similar to that gotten by Onah et al and Otaigbe et al^[18,16], but higher than that reported by Alade et al who reported that only 10.2 % practiced exclusive breast feeding.^[19]

Reasons for not practicing exclusive breastfeeding were varied. 77(38.5%) of mothers stated that they did not believe in exclusive breastfeeding, 19(9.5%) said baby needed water and 11(5.5%) said breast milk was not enough. 1(0.5%) each stated that they were not producing enough breast milk, while father did not consent to exclusive breastfeeding and other problems were also reason for not breast feeding exclusively. In a study by Aliyu et al the most common reason given by respondents for not practicing exclusive breastfeeding was that breast milk did not contain sufficient nutrient to support adequate growth and development, and did not contain sufficient water to quench their children's thirst of the baby^[20] Another study showed that the three major reasons given by respondents for not practicing exclusive breastfeeding were that the baby needed water, breast milk was not sufficient and baby needed herbal medication for vitality.^[19] In this study, another major reason given by respondents for not practicing exclusive breastfeeding was due to cultural beliefs. This is similar to a study done by Nwankwo and Brieger in 2002 which showed that some traditional beliefs, practices and rites encourage the use of pre-lacteal feeds as well as giving extra water herbs and teas to breastfeeding babies.^[21] Numerous studies have examined factors that influence a mother's infant feeding methods,^[22] level of education, religion and spousal support were cross tabulated with breastfeeding and weaning practices. Results show that level of education significantly influences the practice of exclusive breast feeding (p value= 0.000). This is similar to a study carried out in Enugu, Nigeria.^[18] Level of

education was also shown to significantly influence the age of introduction of complementary foods (p value=0.028). A study by Mohammed SG gave similar results.^[20] It did not however significantly influence age at termination of breastfeeding (p value= 0.09).

Religion was shown to significantly influence the practice of exclusive breastfeeding, (p value=0.03), but did not influence age of introduction of complementary foods (p value=0.85) or termination of breastfeeding (p value=0.85)

192(96%) of respondents said their spouses supported their decision to breastfeed, 7(3.5%) said their spouses did not and 1(0.5%) said their spouse was indifferent. Spousal support was shown to significantly influence the practice of exclusive breastfeeding.

186(93%) of respondents said they did not have any problems with breastfeeding while 14(7 %) said they had problems. 6(3%) claimed ill health, 3(1.5%) said they were not producing enough breast milk, 2(1%) said to have had cracked nipple, 1(0.5%) felt breastfeeding was tiring and 2(1%) said they had other problems, one of which was lack of spousal support. A previous study in Michigan and other parts of the United State also reported painful nipple during breastfeeding by mothers and other factors as influence for breast feeding.^{[22][23]}

The Wald statistics results (Table 6) shows that among the three variables considered only mother's education ($X^2=4.948$, $p<0.05$) significantly predicted breastfeeding. This means that mother's education has significant effects on breastfeeding. Other predictor variables in the Wald statistics do not contribute significantly to the prediction of breastfeeding ($p>0.05$). Results of the **Odds ratio (OR)** indicate that mother's education (**OR** = 2.107, 95% CI: 1.09, 4.06), mother's occupation (**OR** = 1.106, 95% CI: 0.52, 2.35) and mother's religion (**OR** = 3.636, 95% CI:

0.94, 14.11) have **Odds ratios** greater than 1 (Table 6). This means that these factors are at least one time and above likely to predict breastfeeding. Acharya and Khanal (2015)^[24] found maternal education to be associated with a higher likelihood of early initiation of breastfeeding. They further stated that education status of the mother is an important social determinant of health for children.

Conclusion

The practice of exclusive breast feeding is still low, despite the level of awareness that has been created about the importance of practicing exclusive breast feeding. Cultural and personal beliefs play important role in influencing the choice to practice exclusively breastfeeding

Recommendations

Efforts by health care providers should gear towards improving nutrition education of mothers, to increase sensitization of women of reproductive age group towards exclusive breastfeeding this process of engagement should also involve spouses of breastfeeding mothers, considering the influential roles they play in their families with regards to important choices such as breastfeeding.

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