

## BREASTFEEDING EDUCATION AND EXCLUSIVE BREASTFEEDING PRACTICES AMONG MOTHERS IN IBADAN, OYO STATE, NIGERIA

Ndikom, Chizoma M. and Ologunye, Blessing F.

### ABSTRACT

*Breast Milk (BM) is recognized as the best source of nutrients and immunity for infants globally. It is known to reduce mortality and enhance optimal child development especially when practiced exclusively. Despite its importance, many women are unable to practice Exclusive Breastfeeding (EBF) for the stipulated six months. The quality of Antenatal breastfeeding education could have important influence on breastfeeding. The aim of the study was to assess the breastfeeding education and EBF practices among mothers in selected Primary Health Care Centres (PHCCs) Ibadan, Oyo state. A total of 150 mothers receiving postnatal services at Idi-Ogungun and Ojoo PHCCs in Ibadan were randomly selected for this study. Structured questionnaires were used to collect data and data was analysed using descriptive statistics and chi-square at  $p \leq 0.05$ . Eighty percent of the mothers received Antenatal Care (ANC) and were health educated by health care workers. Forty percent of the mothers-initiated breastfeeding immediately after delivery and 76.7% subsequently practiced EBF. Over half (51%), of these mothers introduced drinks and food to their babies before 6 months of age, most (76.7%) due to perceived insufficient BM. Many (54.7%) were influenced by friends/relatives. All (100%) felt their feeding was not adequate for EBF practice. Only 35.3% practiced EBF for 6 months. However, there were significant associations between level of education and practice of EBF ( $p=0.00$ ) as well as timing for initiation of breastfeeding ( $p=0.025$ ). The practice of EBF among the mothers was low despite receiving breastfeeding education. Thus, there is need to improve current methods of teaching pregnant women about exclusive breastfeeding.*

**Keywords:** Breastfeeding education, Exclusive breastfeeding, Mothers, Antenatal care, Practice

### Introduction

The practice of exclusive breastfeeding (EBF) contributes to reduction in infant morbidity and mortality, especially from systemic infections, diarrhoea and allergies (Setegn et al. 2012). Among other advantages, adequately breastfed infants grow more rapidly and have higher intelligence quotient than those who are not (Victora et al. 2016). Therefore, EBF provides many social and economic benefits to households and nations at large (Pokhrel et al. 2015). Despite the numerous well-recognized benefits of EBF, its practice is still low worldwide (Cai et al. 2012).

As a part of antenatal care, health care personnel usually educate mothers on various issues regarding the health of the new-born including the practice of exclusive breast feeding (Mattar et al. 2007). They are also taught about care of the breast, its examination, problems and management. The quality of breastfeeding education received by mothers during these antenatal visits have important influence on feeding intentions and decisions after their babies are born (Chen et al. 2012). However, certain barriers limit the effectiveness of breastfeeding education. This majorly bothers on cultural traits that promotes the belief that breastfeeding may be harmful under certain circumstances. For example, in some

cultures, colostrum is discarded while some believe that babies must not be breastfed in public out of fear of an 'evil eye'. Some women also associate breastfeeding with sagging breasts (Hizel et al. 2006; Wanjohi et al. 2016). Therefore, it is important to carefully plan and adapt EBF education to suit the need of the society where it is intended to be carried out. The timing and method of delivery of antenatal breastfeeding education also have impact on its effectiveness. Timing may impact on women who have not decided about their plan to breastfeed while method of the education, whether it is to an individual or a group is also an important variable that needs to be considered (Dyson et al. 2014)

Nigeria is one of the countries where the practice of exclusive breastfeeding is suboptimum (Ogbo et al. 2015). Health workers in many health centres are sometimes overwhelmed with having to attend to many pregnant women at once, thereby having negative impact on the delivery of antenatal education (Lasebikan and Oyetunde 2012; Okwaraji and En, 2014). Also, some pregnant women are too young or are not educated enough to comprehend what is being taught and do not maximally gain from the teaching sessions (Odebode and Kolapo 2016). The most

commonly understood language is often employed during antenatal education and effort is made to translate to other languages. However, in a multilingual nation like Nigeria with over 250 ethnic groups (Ayatse and Iorhen 2013), it is common to experience communication barrier between health workers and pregnant women (Norouzinia et al. 2015). This study was therefore designed to assess the breastfeeding education received during antenatal care and the practice of exclusive breastfeeding among mothers in Ibadan, Oyo state, Nigeria.

#### Materials and Method

This study is a descriptive cross-sectional study. A total of 150 mothers from Ibadan, Oyo State, Nigeria were recruited for the study. Ibadan is the third most populous city in Nigeria after Lagos and Kano with a population of over 3.5 million people (DESA, 2017). The birth rate in this state is high with each woman having an average of 5.8 children during their child bearing years (Nigerian National Bureau of Statistics, 2017). The study population consisted of mothers whose children are within 6 and 9 months attending Ojoo primary health care centre (Ibadan North local government) and Idi-Ogungun primary health centre (Akinyele local

government). Approval for this study was obtained from UI/UCH ethics committee.

Before data collection, mothers were assured that refusal to participate in the study will not affect the services that will be offered to their infants. Also, informed consent was obtained from each respondent after the nature and purpose of the study was explained. Mothers who did not consent to participate in the study were given the options to withdraw, respondents were encouraged to ask questions for clarification and at the end the questionnaires were collated.

Data were coded and analysed using Statistical Package for Social Sciences version 20.0. Comparison between variables was done using descriptive Statistics and chi square analyses  $p \leq 0.05$ .

#### Results

Majority of the study participants (58.7%) were aged between 21-30 years Most were of Yoruba ethnic group (86.7%), almost all were married (92%) and majority were Christians. Many had secondary school education (64.7%) and trading was the dominant occupation (60%). First time mothers dominated (35.3%) the study population (Table 1).

**Table 1: Demographics of The Study Participants**

	Variables	N	%
Age	≤20 years	14	9.3
	21-30	88	58.7
	≥31	48	32.0
Ethnicity	Yoruba	130	86.7
	Igbo	11	7.3
	Hausa	6	2.0
	Others	3	4.0
Marital Status	Single mother	12	8.0
	Married	138	92.0
	Separated/divorced	0	0.0
Religion	Christianity	118	78.7
	Islam	32	21.3
Educational attainment	Secondary	97	64.7
	Diploma	14	9.3
	Degree	39	26.0
Occupation	Civil servant	19	12.7
	Trader	90	60.0
	House wife	25	16.7
	Student	7	4.7
	Others	9	6.0
Numbers of children	1 child	53	35.3
	2 children	30	20.0
	3 children	45	30.0
	4 children	15	10.0
	5 children	7	4.7

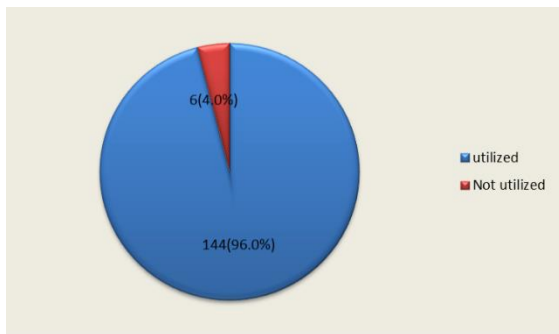


Figure 2: Utilization of Antenatal Care Services

Majority of the mothers utilized antenatal care (ANC) services while they were pregnant. Almost all (80.0%) received ANC in a hospital and were educated by healthcare workers. Most (84.0%) of the respondents needed to obtain permission, especially from their husbands (78.6%) before commencing ANC. Furthermore, most (45.3%) started ANC when they felt that 'it was time to commence' and utilized more than one care services when they were pregnant (64%). Majority (61%) were in the gestational age of 4-6 months when they started ANC (Table 2).

Table 2: Information on Utilization of Antenatal Care

Variables		N (%)			
Place of antenatal care	Hospital	120(80.0)			
	Home	18(12.0)			
	Traditional birth attendant	6(4.0)			
Reasons for commencing antenatal	It is time to commence	68(45.3)			
	Sickness	25(16.7)			
	friends/relatives	45(30.0)			
	Previous pregnancy complications	6(4.0)			
	Used two types of services when Pregnant	Yes	96(64.0)		
Yes	No	54 (36.0)			
Gestational age at booking	0-3 months	21(14.0)			
	4-6 months	92(61.0)			
	7-9months	25(16.7)			
	Don't know	6(4.0)			
Numbers of antenatal care visits during last pregnancy	1-4 times	97(64.7%)	Yes (%)	2(1.8%)	No (%)
	5-8 times	33(22.0%)		15(13.5%)	
	≥9 times	14(9.3%)		15(13.5%)	
Obstetric problems with previous pregnancies		101(67.3%)		43(28.7%)	
	If yes, any influence on antenatal care visits	11(10.9%)		90(89.1%)	
Satisfaction with the service provided		96(64.0%)		48(32.0%)	
Acquired basic information about exclusive breastfeeding		116(77.3%)		28(18.7%)	
Educated on how to put the baby to breast		106(70.7%)		38(25.3%)	

Table 3 revealed that most (64%) of the respondents were taught breast examination during antenatal education, they were also assisted to put their babies to breast after birth (54%). Forty percent of the mothers initiated breast feeding immediately after delivery and subsequently practiced EBF (76.7%). Majority of the mothers practiced EBF for up to 6 months (35.3%). However, slightly more than a half of these mothers introduced other drinks to their babies before they were 6 months old (51.3%)

while 62.7% introduced other food to their babies after they were 6 months old. The most commonly introduced food were soft foods like pap and cereals. A large proportion (64%) of the mothers had between 1-4 ANC visits during their last pregnancy. Sixty-four percent of the respondents were satisfied with the antenatal care they received. Most of the respondents affirmed that they got information about EBF (77.3%) and were taught how to put the baby to breast (70.7%) during ANC.

Table 3: Breastfeeding initiation and duration of EBF among Respondents

Breastfeeding initiation and duration of EBF	Response	N (%)
Breast examination done during your antenatal visits	Yes	96 (64)
	No	54 (36)
Assisted in putting baby to breast after birth	Yes	81 (54)
	No	69 (46)
Time of initiation of breastfeeding	Immediately	60(40.0)
	1-2 hours after birth	20(13.3)
	3-5 hours after birth	28(18.7)

	After 24 hours	42(28.0)
Practiced exclusive breastfeeding	Yes	115 (76.7)
	No	35 (23.3)
Duration of practicing exclusive breastfeeding	1-2 months	28 (18.7)
	3-4 months	21 (14.0)
	5-6 months	53 (35.3)
Time of commencing drinks for baby	before 6 months	77(51.3)
	After 6 months	73(48.7)
Time of commencing other feeds	before 6 months	56(37.3)
	After 6 months	94(62.7)
Types of meals received	Soft food like cereals	143(96.3)
	Solid food like beans	7(4.7)

Over 80% of the respondents acquired more information on the benefits of breastfeeding and up to 50% learnt more about the need to sustain exclusive breastfeeding for over 6 months. Other benefits of breastfeeding

education were positioning and latching to breast, prevention of childhood illnesses, gaining confidence in breastfeeding, risks of formula feeding as seen on Table 4.

**Table 4: Perceived benefits of breastfeeding education on EBF**

Benefits	Very much	Little	Not at all
Knowing the components of breast milk	122(81.3%)	28(18.7%)	0(0.0%)
Positioning and latching	60(40.0%)	90(60.0%)	0(0.0%)
Burping (expelling of gas from the stomach through the mouth)	14(9.3%)	68(45.3%)	68(45.3%)
Attachment of the baby to the breast	48(32.0%)	95(63.3%)	7(4.7%)
Time of initiation of exclusive breastfeeding for 6 months	68(45.4%)	75(50.0%)	7(4.7%)
Sustaining exclusive breastfeeding for 6 months	83(55.3%)	60(40.0%)	7(4.7%)
Breastfeeding frequency	46(30.7%)	77(51.3%)	27(18.0%)
Knowing about rooting reflex	68(45.3%)	61(40.7%)	21(14.0%)
Knowing the benefits of breastfeeding	60(40.0%)	90(60.0%)	0(0.0%)
Prevention of childhood illnesses	74(49.3%)	76(50.7%)	0(0.0%)
Understanding the risk associated with giving formula or other breast milk substitutes before 6 months of age	60(40.0%)	70(46.7%)	20(13.3%)
Gaining confidence in breastfeeding	61(40.7%)	75(50.0%)	14(9.3%)
Care of the breast	27(18.0%)	69(46.0%)	54(36.0%)
Form of family planning	28(18.7%)	109(72.7%)	13(8.7%)
Saving cost	26(17.3%)	124(82.7%)	0(0.0%)

Reasons for introducing other feeds seen on table 5 shows that 55.3% believe that babies needed to be given water and were influenced by the advice from friends/relatives. About 33% believed that their babies were always crying as a result of the practice of EBF while almost half (45.3%) believed that EBF was too demanding. A few (28%) also reported that the

practice of EBF was not convenient because of the nature of their jobs. Only a few (4.7%) reported poor lactation as a reason for not practicing EBF. Also, a few (9.3%) reported lack of knowledge of EBF and inability to cope with raising twins (18%) as a reason for not practicing EBF (Table 5).

**Table 5: Reasons for the introduction other feeds**

Items	Yes	No
Breast milk not enough for baby	35(23.3%)	115(76.7%)
All babies need to drink water	83(55.3%)	67(44.7%)
Advice from friends/relatives	68(45.3%)	80(54.7%)
My baby was always crying	49(32.7%)	101(67.3%)
Exclusive breastfeeding is too demanding	68(45.3%)	82(54.7%)
Not convenient because of my job	42(28.0%)	108(72.0%)
I was lactating poorly	7(4.7%)	143(95.3%)
I do not eat well enough to breast feed exclusively	150(100.0%)	0(0.0%)
Because of my ill health	20(13.3%)	130(86.7%)
It is our culture to give water to breastfeeding babies	21(14.0%)	129(86.0%)
The baby's father insisted on addition of infant formula	13(8.7%)	137(91.3%)
I have never heard of exclusive breastfeeding	14(9.3%)	136(90.7%)
I could not cope because I had twins	27(18.0%)	123(82.0%)

There were significant associations between level of education and practice of exclusive breastfeeding ( $p=0.00$ ) as well as Antenatal care

attendance and timing for initiation of BF ( $p=0.025$ ) on Table 6

**Table 6: Association between Variables**

	Practiced EB	Did not practice EB	Total	p-value
Educational Status				
Secondary	69	28	97	0.000
Tertiary	46	7	53	
Initiation of BF	Utilized ANC service	Not utilized ANC services		Fishers' test
Immediately after birth	54	6	60	0.025
Within 24 hours after birth	48	0	48	
After 24 hours of birth	42	0	42	

### Discussion

Despite the proven benefits of EBF, there is low practice of EBF among mothers in Ibadan, Nigeria. Breastfeeding education is one of the components of antenatal care that should be adequate enough to prepare a pregnant woman for the practice of exclusive breast feeding after her child is born. Current World Health Organization and United Nations Children Fund recommendation for optimal infant feeding include exclusive breastfeeding for the first six months after which complementary foods should be introduced with continuation of breastfeeding until two years or beyond (Bhandari 2016). The low compliance of mothers in Ibadan with the practice of EBF may be because the information provided about EBF is basic and healthcare provider do not go in-depth enough. They may also not have adequate teaching skills. In many developing countries like Nigeria, healthcare workers are often overwhelmed with attending to many pregnant women at once in uncondusive environments (Okwaraji and En 2014), this may cause them to not take enough time to explain and make the women understand what is being taught. Communication barrier and not taking time to assess if special provision is required for certain women who are not educated or who have difficulty in hearing may also contribute to poor learning among these women. Also, the practice of teaching all women together without giving special attention to the first timers who do not have prior knowledge of nursing a baby may have contributed to the poor practice of EBF among the study participants.

In this study, some respondents reported that they did not put their baby to breast after birth and they were not assisted in putting baby to breast after birth. This can be common among women who are first timers and do not have

adequate knowledge of exclusive breastfeeding. This indicates that health care provider (nurses and midwives) need to be encouraged to give adequate attention and support to these categories of mothers. Doing this will enhance the chances of initiating breastfeeding within one hour of birth and the maintenance of exclusive breastfeeding for more than four months (Neupane and Nwaru, 2014).

Several factors have been associated with breastfeeding practices of women including maternal age, educational status, wealth quantile and place of delivery (Joshi et al., 2014). The challenges of EBF practices among mothers in Ibadan varies, they include that mothers found it too demanding and not convenient for their job, some complained of poor lactation, ill health and the fact that it was cultural to give water to babies. Lastly, not coping well and multiple births were also mentioned. All these challenges were quoted to have contributed to the inability to practice exclusive breastfeeding for six months. Health care providers should consider these factors while designing EBF teachings and include coping measures in their antenatal education. Breastfeeding is a skill that needs practice and perseverance, therefore great teaching skills and encouragement is needed to persuade women to breastfeed and to continue to breastfeed.

Most participants in this study reported that they started antenatal care between 4-6 months which is against the recommendation of WHO that at least an objective-based antenatal visit should be made within the first visit in the first trimester (WHO 2015). This can contribute to inadequate knowledge of exclusive breastfeeding and result to poor practice of exclusive breastfeeding after birth.

Some mothers who are exposed to adequate breastfeeding education know that exclusive breastfeeding is an affordable and feasible intervention that improves the survival of the new born and has been identified as one of the most natural forms of preventive medicine (Brock and Long, 2019). Breast milk confers a child with significant protection against many infectious diseases because it contains antibodies that strengthen the Childs immunity (Lamberti et al. 2013).

### Conclusion and Recommendations

Breastfeeding is a very important aspect of the care of the infants, but some mothers are unable to practice exclusive breastfeeding for the stipulated six months. Antenatal education is a routine process of giving health information to mothers. The assessed the breastfeeding education and EBF practices among mothers in order to appreciate the extent women acquire information on breastfeeding during antenatal care. Most of the mothers received antenatal care information of breastfeeding from health care workers. The mothers found the information received useful in initiating and sustaining breastfeeding. Though over half of these mothers introduced drinks and food to their babies before 6 months of age mainly due to perceived insufficient breast milk. Less than 40% practiced EBF for 6 months. There is need for more structured educational programmes especially on the physiological process of lactation. Myths and customs on breastfeeding need to be strategically addressed.

Findings from this study shows that there is a need for periodic retraining of relevant health workers on skills and approaches to teaching EBF effectively to pregnant women. There is also a need to adapt EBF education to the need of the population being taught. Factors like educational background and parity should be considered when educating pregnant women and coping mechanism to the challenges commonly raised by pregnant women should be taught during EBF education. There is need for further research to evaluate the effect of an educational intervention on exclusive breastfeeding practices.

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