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Factors Associated with Exclusive Breastfeeding Cessation among Post-Partum Mothers in Ibadan South-East Local Government Area, Ibadan, Oyo State

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Abstract:

The study aimed to determine factors associated with exclusive breastfeeding cessation among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state. The study was cross-sectional in Ibadan South-East Local Government Area, Ibadan, Oyo State. A multi-stage sampling procedure was used to select 386 post-partum mothers from the study site. Sample size of 386 was used for the study. Data was collected using interviewer-administered questionnaire. Data collected was entered, clean, edited, and analyzed with SPSS version 21.The study revealed that the majority of the respondents know EBF. Cessation of EBF was associated with younger age, number of children, number of ANC attendance, swollen breast, and the feeling that baby was not getting enough weight. Conclusion and Recommendations: EBF was associated with problems/difficulties in the BF technique. It is recommended that health care professionals like doctors, nurses, and midwives should train mothers during and after pregnancy regarding BF technique or pumping breast milk in case of BF difficulties, improve mothers' confidence about the ability to breastfeed, and enhance mothers' knowledge on the normal process of lactation. Secondly, it is the role of policymakers to ensure the implementation of Baby-Friendly Hospital Initiative (BFHI) guidelines in hospitals to meet the WHO's global target of infants being exclusively breastfed until six months of age.

Keywords: Exclusive breastfeeding; Cessation, EBF, risk factors, post-partum mothers

INTRODUCTION

Breastfeeding is acknowledged as the optimal way to feed infants for the first six months by national and many other health organizations (AAP, 1997; United Nations Children's Fund, 2006; WHO, 2003). Despite its countless benefits to children and mothers, the continuation rates of EBF are low in the United States (Centers for Disease Control and Prevention [CDC], 2013c; Dudenhausen, 2014; Silfverdal, 2011). It is essential to understand how multiple factors affect breastfeeding practices in order to improve the duration of exclusive breastfeeding. Studies have consistently shown positive associations between increased duration of breastfeeding and demographic, biological, and social factors associated with mothers (Thulier & Mercer, 2009). It is estimated that improved breastfeeding practices could save almost $13 billion per year in the United States if exclusive breastfeeding rates increased from 64% to 75% in the hospital and from 29% to 50% by six months of age (Bartick & Reinhold, 2010).

A wide range of health benefits of exclusive breastfeeding to the infant and mother have been well documented in various evidence-based research studies (AAP, 2005). Numerous studies have shown that EBF between six months and two years of age has been associated with a decreased incidence of allergic disease, bacterial meningitis, bacteremia, diarrhea, respiratory tract infection, necrotizing enterocolitis, otitis media, urinary tract infection, late onset sepsis in preterm babies, lymphoma, leukemia, Hodgkin's disease, hypercholesterolemia, asthma, and postneonatal infant mortality (Dudenhausen, 2014; Silfverdal, 2011; Wiener & Wiener, 2011).

Research shows that prolonged and EBF has been associated with a reduction in the risk of sudden infant death syndrome, allergic dermatitis, respiratory infections in infants, and necrotizing enterocolitis in preterm

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infants (Krame & Kakuma, 2012). Studies have concluded that EBF also provides many maternal benefits such as reducing the chances of developing adverse health outcomes such as obesity and ovarian and breast cancer in mothers (Stevens, Hanson, Prasek, & Elliott, 2008; Thulier & Mercer, 2009). In order to effectively increase breastfeeding rates, there is a need for multi-dimensional interventions that concurrently tackle different aspects of breastfeeding barriers (Nabulsi et al., 2014).

Earlier studies have documented cessation of breastfeeding but reasons vary by infant age, parity and geographical distribution (Lamberti et al., 2011). Breastfeeding promotion is considered one of the essential elements of post-partum care. Given that breastfeeding has been observed to benefit both the mother's and infant's health, the World Health Organization (WHO) recommends that breastfeeding is initiated within an hour of birth, exclusive breastfeeding (EBF) is performed for the first six months, and breastfeeding is continued for at least two years (WHO., 2019).

These factors differ from one place to another. Studies in Nigeria investigated factors influencing exclusive breastfeeding practices among which includes fear of loss of weight, nature of the job, abstinence from certain foods and drugs, feeding problems of the baby, perception of breastfeeding as for rural and uneducated women, the health of the nursing mother, the drooping of breasts, and lower abdominal pain were among the factors associated with cessation of breastfeeding (Kilimbi, 2014). The most influencing factors identified were socioeconomic, demographics, cultural, obstetric, and pediatric factors (Lawoyinet al., 2001. Deaden et al., 2002). Various studies show that a mother's age, socioeconomic status, number of parities, psychosocial factors, and maternity-leave duration are the predictors of breastfeeding duration. Exclusive breastfeeding is also independently associated with perceived inadequate breast milk, cesarean section delivery, and feeding counseling during postnatal care (Vieira, et al., 2014; Kasahunet al., 2016). However, the author is unaware of studies evaluating the factors for withdrawing the process of breastfeeding during the first six months of a child's life. This study is aimed at investigating factors associated with exclusive breastfeeding cessation among post-partum mothers. Information derived from the identified factors will assist program managers and health workers in developing feasible interventions and strengthening the existing factors on exclusive breastfeeding. Moreover, it will create an opportunity for policy debate and modification by a combination of the Ministry of Health, other Stakeholders and Policymakers, and all other effects related to exclusive breastfeeding by supporting exclusive breastfeeding and reducing the morbidity and mortality rate to children.

Research Questions

1 What is the knowledge of exclusive breastfeeding among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state?

2. What is the breastfeeding pattern/rate among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.

3. What is the average exclusive breastfeeding cessation period among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state?

4. What types of foods are given to the infants by post-partum mothers immediately following exclusive breastfeeding cessation in Ibadan South East Local Government Area, Ibadan, Oyo state?

5. What are the factors associated with exclusive breastfeeding cessation among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state?

6. What are the health challenges experienced by children who experienced exclusive Breastfeeding cessation from their mothers in Ibadan South East Local Government Area, Ibadan, Oyo state?

Broad Objective

To investigate factors associated with exclusive breastfeeding cessation among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.

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Specific Objectives

1. To investigate the knowledge of exclusive breastfeeding among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.

2. To assess the breastfeeding pattern/rate among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.

3. To investigate the average cessation period of exclusive breastfeeding among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.

4. To identify the types of foods given to infants following exclusive breastfeeding cessation by post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.

5. To identify factors associated with exclusive breastfeeding cessation among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.

6. To assess the type of health challenges experienced by children who experienced exclusive Breastfeeding cessation from their mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.

Research Hypotheses

H01: There is no significant association between socio-demographic characteristics of respondents and cessation period of exclusive breastfeeding among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.

H02: There is no significant relationship between the knowledge on exclusive breastfeeding and the cessation period of exclusive breastfeeding among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.

H03: There is no significant relationship between types of foods given to infants following exclusive breastfeeding cessation and health challenges experienced.

MATERIALS AND METHODS

Study design

This study was carried out in Ibadan South-East Local Government Area, Ibadan, Oyo State. Ibadan South-East Local Government Area is one of the smallest local government area in the State with it's administrative headquarters located in Mapo town.

Sampling Approach/Frame

The study population will consist of post-partum mothers within Ibadan South East Local Government Area, Ibadan, Oyo State. A multi-stage sampling procedure will be used to select 386 post-partum mothers from the study site.

Data Collection Method

Data was collected using interviewer-administered questionnaire which consist of the following. Section A: Socio-demographic characteristics of respondents

Section B: NKnowledge on exclusive breastfeeding among respondents

Section C: Breastfeeding pattern/rate among the respondents.

Section D: Average cessation period of exclusive breastfeeding among the respondents

Section E: Types of foods given to infants following exclusive breastfeeding cessation by post-partum mothers.

Section F: Factors associated with exclusive breastfeeding cessation among the respondents

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Section G: Type of health challenges experienced by children who experienced exclusive breastfeeding cessation from their mothers.

Data Analysis

1. Data collected was entered, clean, edited, and analyzed with SPSS version 21. This included the analysis of mothers' age, marital status, occupation, level of education, and ethnicity. The frequency table diagram and tables were computed. The inferential statistic was used to
2. determine the level of relationship between the independent variable of the respondent and dependent variables with a p-value less than 0.05

Result Analysis

4.2: Knowledge on of exclusive breastfeeding among respondent

Variable	Responses	Frequency (386)	Percentage (100)
Have you heard of exclusive breastfeeding?	Yes	386	100%
If yes, where?	Health institution Mass media Books Family and friend	210 41 105 30	54.4 10.6 27.2 7.8
Do you know breastfeeding should be initiated within the first hour after delivery	Yes No	273 113	70.7 29.3
Do you know EBF should last for 6months	Yes No	339 47	87.8 12.2
Does EBF includes giving the baby water along with breastfeeding	Yes No	250 136	64.8 35.2
Does EBF improve a child's immunity	Yes No	346 40	89.6 10.4
Does EBF allows child spacing	Yes No	228 158	59.1 40.9
Does EBF reduce risk of breast cancer	Yes No	240 146	62.2 37.8
Do you know expressed breast milk is also allowed for EBF	Yes No	120 266	31.1 68.9
Do you think bottle-feeding should be encouraged for EBF	Yes No	320 66	82.9 17.1
Do you think breast milk is not always sufficient for the child for the duration of 6months and thereby need pap after 3months	Yes No	307 79	79.5 20.5
Do you know prescribed drugs are allowed during EBF period	Yes No	360 26	93.3 6.7

Table 4.2 shows the knowledge of exclusive breastfeeding among respondents. The study revealed that all the respondent (100%) had heard of exclusive breastfeeding. More than half of the respondents (54.4%) heard about exclusive breastfeeding from the health institution, this is followed by those (27.2%) who read about it from books while others (10.6%, 7.8%) heard it from the social media and family & friends respectively. Majority of the respondent (70.7%) mentioned that breastfeeding should be initiated within the first hour after delivery. Almost all the respondents (87.8%) mentioned that exclusive breastfeeding should

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last for 6 months. There were more respondent (64.8%) who agreed that EBF includes giving the baby water along with breastfeeding.

Almost all the respondents (89.6%) mentioned that exclusive breastfeeding improved a child's immunity. More than half of the respondents (59.1%) mentioned that EBF allows child spacing. Many respondents (62.2%) believed that EBF reduced risk of breast cancer. There were more respondents (68.9%) who mentioned that expressed breast milk is not allowed for Exclusive breastfeeding. Almost all the respondents (82.9%) felt bottle-feeding should be encouraged for EBF. Majority of the respondents (79.5%) mentioned that breast milk is not enough for the child thereby there would be need for pap after 3 months. Almost all respondents (93.3%) mentioned that prescribed drugs are allowed during EBF period.

Table 4.3: Respondents knowledge grade

	Frequency	Percent
Low Knowledge	34	8.8
Average Knowledge	216	56.0
High Knowledge	136	35.2

Table 4.3 shows the respondents knowledge grade. It was revealed that more than half of the students had an average knowledge of exclusive breastfeeding with about one-third having a high knowledge.

4.4: Breastfeeding pattern

Table 4.4: Breastfeeding pattern

Variable	Responses	Frequency (386)	Percentage (100)
When did you start breastfeeding after delivery	Within 1hr After 1hr	256 130	66.3 33.7
What is the daily frequency of breastfeeding this index child	On demand Regularly Randomly	337 10 39	87.3 2.6 10.1
Did you give colostrum to your baby	Yes No	322 64	83.4 16.6
Have you given your last baby Prelacteal food	Yes No	81 305	21.0 79.1
Did you ever practice exclusive breastfeeding	Yes No	162 224	42.0 58.0
Did the baby get breast milk directly from you alone or it was combined with expressed milk	Directly me Combined with expressed milk	323 63	83.7 16.3

Table 4.4 show the breastfeeding patterns among the respondents. It was revealed that many respondents (66.3%) started breastfeeding within 1hour after delivery while others (33.7%) started after 1hour. Majority of the respondents (87.3%) breastfed on. Majority of the respondents (83.4%) claimed to have given their baby colostrum after delivery while few (16.6%) did not. Many participants (79.1%) gave their index child prelacteal food before initiating breastfeeding while others (21%) did not. Less than half of the respondents (42.0%) had practiced exclusive breastfeeding while others (58.0%) never did. Almost all the respondents (83.7%) mentioned that fed their baby directly from breast to mouth.

4.5: Average cessation period of exclusive breastfeeding among the respondents

Table 4.5: Average cessation period of exclusive breastfeeding among the respondents

Variable	Responses	Frequency (386)	Percentage (100)
Did you give any solid/liquid other than	Yes	224	58.0

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breast milk, vitamin, syrup or medication to child at aged or less than six months	No	162	42.0
If yes, how often do you give solid/liquid before the age of six months	Rarely Sometimes Many times No Response	21 70 133 162	5.4 18.1 34.5 42.0
Did you continue Breastfeeding after you stopped before the age of six months	Yes No No Response	93 131 162	24.0 34.0 42.0
If yes, how often do you breastfeed your baby after the cessation of EBF.	Rarely Sometimes Many times No Response	101 81 42 162	26.2 21.0 10.8 42.0
For how long did you stop EBF before you continued	2 weeks 2 months 3 months 3 weeks 4 months No Response	85 9 12 112 6 162	22.0 2.3 3.1 29.0 1.6 42.0

Table 4.5 shows the average cessation period of exclusive breastfeeding among the respondents. It was revealed that, other than breast milk, vitamin, syrup or medication, more than half of the respondents (58.0%) combined solid/liquid with breast milk, vitamin, syrup or medication at less than 6months. This combination of solid/liquid was given many times by many respondents (34.5%) and this is followed by respondents (18.1%) who sometimes give solid/liquids. Respondents (34.0%) who did not continue breastfeeding after the cessation of EBF were more than those who did (24.0%). Following the cessation of EBF, it was revealed that about a quarter of the respondents (26.2%) rarely breastfeed their baby while some mothers (21.0%) sometimes breastfeed their baby. It was discovered that there were more respondents (29.0%) who stopped EBF for 3weeks than those (22.0%) who stopped for 2weeks before continuing to breastfeed the child.

4.6: Types of foods given to infants following exclusive breastfeeding cessation by post-partum mother

Table 4.6: Types of foods given to infants following exclusive breastfeeding cessation by post-partum mother

Variable	Responses	Frequency (386)	Percentage (100)
Pap was given to my child after I stopped	Yes No No Response	176 48 162	45.6 12.4 42.0
My baby was taking formula milk	Yes No No Response	135 89 162	34.9 23.1 42.0
I was giving my baby cereal	Yes No No Response	85 139 162	22.0 36.0 42.0
I was giving my baby family food	Yes No No Response	163 61 162	42.2 15.8 42.0

Table 4.6 shows the types of foods given to infants following exclusive breastfeeding cessation by post-partum mother. This foods include Pap (45.6%), formula milk (34.9%), baby cereal (22%) and family food (42.2%).

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4.7: Factors associated with exclusive breastfeeding cessation among the respondents

Table 4.7: Factors associated with exclusive breastfeeding cessation among the respondents

Variable	Responses	Frequency (386)	Percentage (100)
I stopped EBF because I had to return to work	Yes	55	14.2
	No	169	43.8
	No Response	162	42.0
My child was not getting enough milk and was not gaining weight, so I had to introduce other food	Yes	150	38.9
	No	74	19.1
	No Response	162	42.0
My baby was sick after delivery and was unable to suck, that was why we had to give her formula	Yes	52	13.4
	No	172	44.6
	No Response	162	42.0
I stopped exclusive BF because I was having breast pain or swollen breast	Yes	176	45.6
	No	48	12.4
	No Response	162	42.0

Table 4.7 shows the factors associated with exclusive breastfeeding cessation among the respondents. It was revealed that only few respondents (14.2%) stopped EBF because they had to return to work, about one-third of the respondents (38.9%) stopped EBF and introduce other foods because they felt their child was not gaining enough weight. Some respondents (13.4%) mentioned that their baby was sick after delivery and was unable to suck so baby formula had to be introduced. Almost half of the respondents (45.6%) stopped exclusive breastfeeding because of breast sore or swollen breast.

4.8: Type of health challenges experienced by children who experienced exclusive breastfeeding cessation from their mothers

Table 4.8: Type of health challenges experienced by children who experienced exclusive breastfeeding cessation from their mothers.

Variable	Responses	Frequency (386)	Percentage (100)
Diarrhea	Yes	200	51.8
	No	24	6.2
	No Response	162	42.0
Acute respiratory infection	Yes	150	38.9
	No	74	19.1
	No Response	162	42.0
Fever	Yes	180	46.6
	No	44	11.4
	No Response	162	42.0
Acute loss of weight	Yes	120	31.1
	No	104	26.9
	No Response	162	42.0

Table 4.8 shows the type of health challenges experienced by children who experienced exclusive breastfeeding cessation from their mothers. It was revealed that many respondents mentioned that their children experienced health challenges after exclusive breastfeeding cessation. More than half of the respondents (51.8%) indicated that, following the EBF cessation, their children experienced diarrhea. There were more respondents (38.9%) whose baby experienced acute respiratory infection. Almost half of the

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respondents (46.6%) mentioned that their children experienced Fever following the cessation of EBF. It was also show that many children (31.1%) experienced acute loss of weight.

4.9 Test of Hypothesis

$H_0$1: There is no significant association between socio-demographic characteristics of respondents and cessation period of exclusive breast-feeding among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.

Table 4.9 shows the result of using a Pearson chi-square test of independence to show the relationship between socio-demographic characteristics of the respondents and the cessation period of EBF. Here, a layered crosstab of the cessation period of EBF by socio-demographic was shown alongside the Chi Square value, degree of freedom, p-value and the outcome of the chi square test. The cessation period of EBF was found to be statistically significant with socio-demographic characteristics of the respondents; Age ($X^2(15)$ = 71.65, 0.000), Number of Children ($X^2(25)$ = 166.5, 0.000), Index Child Age ($X^2(5)$ = 20.09, 0.000), Marital Status ($X^2(15)$ = 58.33, 0.000), Highest Level of Education ($X^2(30)$ = 155.21, 0.000), Religion ($X^2(5)$ = 13.55, 0.000), Husband highest level of education ($X^2(20)$ = 72.58, 0.000), Occupation ($X^2(30)$ = 116, 0.000), Husband Occupation ($X^2(15)$ = 132.44, 0.000), Facility of ANC ($X^2(15)$ = 58.39, 0.000), Number of ANC Attendance ($X^2(15)$ = 84.92, 0.000), Initiation of ANC ($X^2(10)$ = 42.79, 0.000) and Average Monthly Income ($X^2(25)$ = 92.65, 0.000). Therefore, the null hypothesis is hereby rejected and the alternative hypothesis accepted.

Table 4.9a: Association between socio-demographic and Cessation period of EBF

Description							X^2	DF	p-value	Outcome
		Cessation period of exclusive breast-feeding								
Socio-demographic		2 Weeks	3 Weeks	2 Months	3 Months	4 Months				
Age	20-29	18 (22.2%)	44 (54.3%)	1 (1.2%)	3 (3.7%)	1 (1.2%)	71.65	15	0.000	Sig.
	30-39	45 (22.7%)	49 (24.7%)	4 (2.0%)	8 (4.0%)	3 (1.5%)				
	40-49	20 (20.8%)	10 (10.4%)	4 (4.2%)	1 (1.0%)	2 (2.1%)				
	50-59	2 (18.2%)	9 (81.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)				
Number of Children	1	21 (23.3%)	43 (47.8%)	1 (1.1%)	3 (3.3%)	3 (3.3%)	166.5	25	0.000	Sig.
	2	13 (15.5%)	40 (47.6%)	1 (1.2%)	2 (2.4%)	0 (0.0%)				
	3	8 (10.0%)	10 (12.5%)	0 (0.0%)	0 (0.0%)	2 (2.5%)				
	4	34 (39.1%)	15 (17.2%)	5 (5.7%)	6 (6.9%)	1 (1.1%)				
	5	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)				
	6	9 (56.3%)	4 (25.0%)	2 (12.5%)	1 (6.3%)	0 (0.0%)				

Table 4.9b: Association between socio-demographic and Cessation period of EBF

Description							X^2	DF	p-value	Outcome
		Cessation period of exclusive breast-feeding								
Socio-demographic		2 Weeks	3 Weeks	2 Months	3 Months	4 Months				
	1 to 12	85	112	9	12	6				

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Index Child Age	Months	(22.8%)	(30.1%)	(2.4%)	(3.2%)	(1.6%)	20.09	5	0.001	Sig.
	25 to 36 Months	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)				
Sex of Child	Female	46 (20.1%)	70 (30.6%)	6 (2.6%)	10 (4.4%)	3 (1.3%)	4.82,	5	0.438	N.Sig
	Male	39 (24.8%)	42 (26.8%)	3 (1.9%)	2 (1.3%)	3 (1.9%)				
Marital Status	Single	1 (7.7%)	12 (92.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	58.33	15	0.000	Sig.
	Married	70 (21.6%)	85 (26.2%)	5 (1.5%)	9 (2.8%)	5 (1.5%)				
	Widowed	5 (45.5%)	3 (27.3%)	2 (18.2%)	0 (0.0%)	1 (9.1%)				
	Separated	9 (23.7%)	12 (31.6%)	2 (5.3%)	3 (7.9%)	0 (0.0%)				
Highest Level of Education	Primary	1 (5.0%)	10 (50.0%)	0 (0.0%)	1 (5.0%)	1 (5.0%)	155.21	30	0.000	Sig.
	Secondary	33 (25.6%)	16 (12.4%)	6 (4.7%)	5 (3.9%)	4 (3.1%)				
	Vocational	9 (18.4%)	28 (57.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)				
	NCE	28 (29.8%)	39 (41.5%)	2 (2.1%)	4 (4.3%)	0 (0.0%)				
	Polytechnic	1 (3.1%)	12 (37.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)				
	University	13 (54.2%)	7 (29.2%)	1 (4.2%)	2 (8.3%)	1 (4.2%)				

Table 4.9c: Association between socio-demographic and Cessation period of EBF

Description							X^2	DF	p-value	Outcome
		Cessation period of exclusive breast-feeding								
Socio-demographic		2 Weeks	3 Weeks	2 Months	3 Months	4 Months				
Religion	Islam	43 (24.6%)	61 (34.9%)	6 (3.4%)	6 (3.4%)	2 (1.1%)	13.55	5	0.019	Sig.
	Christianity	42 (19.9%)	51 (24.2%)	3 (1.4%)	6 (2.8%)	4 (1.9%)				
Husband highest level of education	No formal education	3 (5.9%)	9 (17.6%)	0 (0.0%)	0 (0.0%)	1 (2.0%)	72.58	20	0.000	Sig.
	Primary	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)				
	Secondary	41 (21.1%)	61 (31.4%)	5 (2.6%)	7 (3.6%)	2 (1.0%)				
	Vocational	13 (35.1%)	22 (59.5%)	0 (0.0%)	1 (2.7%)	1 2.7%				
	Tertiary	28 (28.9%)	20 (20.6%)	4 (4.1%)	4 (4.1%)	2 (2.1%)				
Occupation	Civil servant	15 (50.0%)	9 (30.0%)	1 (3.3%)	1 (3.3%)	1 (3.3%)	116	30	0.000	Sig.
	House wife	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)				
	Artisan	17 (12.4%)	67 (48.9%)	0 (0.0%)	3 (2.2%)	0 (0.0%)				
	Labourer/Cleaner	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)				

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	Student	5 (35.7%)	8 (57.1%)	1 (7.1%)	0 (0.0%)	0 (0.0%)				
	Unemployed	2 (11.8%)	2 (11.8%)	0 (0.0%)	0 (0.0%)	1 (5.9%)				
	Trading	46 (27.2%)	26 (15.4%)	7 (4.1%)	8 (4.7%)	4 (2.4%)				

Table 4.9d: Association between socio-demographic and Cessation period of EBF

Description							X^2	DF	p-value	Outcome
		Cessation period of exclusive breast-feeding								
Socio-demographic		2 Weeks	3 Weeks	2 Months	3 Months	4 Months				
Husband Occupation	Civil servant	31 (25.4%)	53 (43.4%)	2 (1.6%)	2 (1.6%)	3 (2.5%)	132.44	15	0.000	Sig.
	Artisan	5 (21.7%)	3 (13.0%)	2 (8.7%)	0 (0.0%)	1 (4.3%)				
	Labourer/Cleaner	44 (31.7%)	48 (34.5%)	5 (3.6%)	9 (6.5%)	1 (0.7%)				
Facility of ANC	Home	15 (21.7%)	22 (31.9%)	1 (1.4%)	1 (1.4%)	2 (2.9%)	58.39	15	0.000	Sig.
	Government hospital/clinic/healthcare	24 (14.3%)	53 (31.5%)	1 (0.6%)	4 (2.4%)	1 (0.6%)				
	Mission hospital	4 (16.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (4.0%)				
	Private hospital	42 (33.9%)	37 (29.8%)	7 (5.6%)	7 (5.6%)	2 (1.6%)				
Number of ANC Attendance	11-15days	16 (27.1%)	9 (15.3%)	1 (1.7%)	1 (1.7%)	0 (0.0%)	84.92	15	0.000	Sig.
	16-20days	8 (18.6%)	5 (11.6%)	0 (0.0%)	0 (0.0%)	2 (4.7%)				
	21-25days	42 (43.8%)	20 (20.8%)	4 (4.2%)	6 (6.3%)	3 (3.1%)				
	26-30days	19 (10.1%)	78 (41.5%)	4 (2.1%)	5 (2.7%)	1 (0.5%)				

Table 4.9e: Association between socio-demographic and Cessation period of EBF

Description						X^2	DF	p-value	Outcome
	Cessation period of exclusive breast-feeding								
Socio-demographic	2 Weeks	3 Weeks	2 Months	3 Months	4 Months				

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Type of Marriage	Monogamy	13 20.6%	18 28.6%	4 6.3%	3 4.8%	1 1.6%	6.21	5	0.286	N.Sig
	Polygamy	72 22.3%	94 29.1%	5 1.5%	9 2.8%	5 1.5%				
Initiation of ANC	1st trimester	74 (23.0%)	101 (31.4%)	7 (2.2%)	8 (2.5%)	4 (1.2%)	42.79	10	0.000	Sig.
	2nd trimester	10 (16.1%)	11 (17.7%)	2 (3.2%)	4 (6.5%)	1 (1.6%)				
	3rd trimester	1 (50.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (50.0%)				
Average Monthly Income	< 20,000	31 (18.8%)	42 (25.5%)	4 (2.4%)	5 (3.0%)	2 (1.2%)	92.65	25	0.000	Sig.
	21.000-30,000	26 (21.8%)	27 (22.7%)	3 (2.5%)	1 (0.8%)	0 (0.0%)				
	41,000-60,000	5 (14.3%)	10 (28.6%)	0 (0.0%)	1 (2.9%)	2 (5.7%)				
	61,000-80,000	0 (0.0%)	13 (86.7%)	0 (0.0%)	2 (13.3)	0 (0.0%)				
	81,000-100,000	16 (40.0%)	17 (42.5%)	1 (2.5%)	3 (7.5%)	1 (2.5%)				
	101,000-120,000	7 (58.3%)	3 (25.0%)	1 (8.3%)	0 (0.0%)	1 (8.3%)				

$H_0$2: There is no significant relationship between the knowledge on exclusive breast-feeding and cessation period of exclusive breast-feeding among post-partum mothers in Ibadan South East Local Government Area, Ibadan, Oyo state.

Table 4.10 shows the result of using a Pearson chi-square test of independence to show the relationship between the knowledge of exclusive breastfeeding and the cessation period of EBF. Here, a layered crosstab of the cessation period of EBF by knowledge level of respondents was shown alongside the Chi Square value, degree of freedom, p-value and the outcome of the chi square test. The knowledge of EBF was found to be statistically significant with cessation period of EBF ($X^2(10) = 40.99$, p=0.000). Therefore, the null hypothesis is hereby rejected and the alternative hypothesis accepted.

Table 4.10: Association between knowledge and Cessation period of EBF

Description							X^2	DF	p-value	Outcome
		Cessation period of exclusive breast-feeding								
		2 Weeks	3 Weeks	2 Months	3 Months	4 Months				
Knowledge Level	Low Knowledge	2 5.9%	3 8.8%	0 0.0%	0 0.0%	0 0.0%	40.99	10	0.000	Sig
	Average Knowledge	60 27.8%	56 25.9%	7 3.2%	8 3.7%	5 2.3%				
	High Knowledge	23 16.9%	53 39.0%	2 1.5%	4 2.9%	1 0.7%				

$H_0$3: There is no significant relationship between types of foods given to infants following exclusive breastfeeding cessation and health challenges experienced.

Table 4.11a shows the result of using a Pearson chi-square test of independence to show the relationship between the types of food giving to infants following the cessation of EBF and the health challenges experienced. Here, a layered crosstab of the PAP by health challenges was shown alongside the Chi Square value, degree of freedom, p-value and the outcome of the chi square test. Here, the association between PAP and the health challenges was found to be statistically significant with Diarrhea ($X^2(4) = 387.6$, p=0.000), Acute Respiratory Infection ($X^2(4) = 389.5$, p=0.000), Fever ($X^2(4) = 402.5$, p=0.000) and Acute Loss of

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Weight ($X^2(4) = 389.3$, p=0.000). Therefore, the null hypothesis is hereby rejected and the alternative hypothesis accepted.

Table 4.11a: Association between PAP and health challenges experienced

Description				X^2	DF	p-value	Outcome
		I gave my baby PAP					
Health Challenges		Yes	No				
Diarrhea	Yes	159 79.5%	41 20.5%	387.6	4	.000	Sig.
	No	17 70.8%	7 29.2%				
Acute Respiratory Infection	Yes	122 81.3%	28 18.7%	389.5	4	.000	Sig.
	No	54 73.0%	20 27.0%				
Fever	Yes	149 82.8%	31 17.2%	402.5	4	.000	Sig.
	No	27 61.4%	17 38.6%				
Acute loss of weight	Yes	90 75.0%	30 25.0%	389.3	4	.000	Sig.
	No	86 82.7%	18 17.3%				

Table 4.11b shows the result of using a Pearson chi-square test of independence to show the relationship between the types of food giving to infants following the cessation of EBF and the health challenges experienced. Here, a layered crosstab of the Formula Milk by health challenges was shown alongside the Chi Square value, degree of freedom, p-value and the outcome of the chi square test. Here, the association between Formula Milk and the health challenges was found to be statistically significant with Diarrhea ($X^2(4) = 390.2$, p=0.000), Acute Respiratory Infection ($X^2(4) = 387.9$, p=0.000), Fever ($X^2(4) = 386.1$, p=0.000) and Acute Loss of Weight ($X^2(4) = 679.6$, p=0.000). Therefore, the null hypothesis is hereby rejected and the alternative hypothesis accepted.

Table 4.11b: Association between Formula Milk and health challenges experienced

Description				X^2	DF	p-value	Outcome
		I gave Formula Milk					
Health Challenges		Yes	No				
Diarrhea	Yes	117 58.5%	83 41.5%	390.2	4	.000	Sig.
	No	18 75.0%	6 25.0%				
Acute Respiratory Infection	Yes	94 62.7%	56 37.3%	387.9	4	.000	Sig.
	No	41 55.4%	33 44.6%				
Fever	Yes	109 60.6%	71 39.4%	386.1	4	.000	Sig.
	No	26 59.1%	18 40.9%				
Acute loss of weight	Yes	120 100.0%	0 0.0%	679.6	4	.000	Sig.
	No	15	89				

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		14.4%	85.6%				

Table 4.11c shows the result of using a Pearson chi-square test of independence to show the relationship between the types of food giving to infants following the cessation of EBF and the health challenges experienced. Here, a layered crosstab of the Baby Cereal by health challenges was shown alongside the Chi Square value, degree of freedom, p-value and the outcome of the chi square test. Here, the association between Baby Cereal and the health challenges was found to be statistically significant with Diarrhea ($X^2(4) = 391.2$, p=0.000), Acute Respiratory Infection ($X^2(4) = 418.9$, p=0.000), Fever ($X^2(4) = 397.0$, p=0.000) and Acute Loss of Weight ($X^2(4) = 395.6$, p=0.000). Therefore, the null hypothesis is hereby rejected and the alternative hypothesis accepted.

Table 4.11c: Association between Baby Cereal and health challenges experienced

Description				X^2	DF	p-value	Outcome
		I gave Baby Cereal					
Health Challenges		Yes	No				
Diarrhea	Yes	72 36.0%	128 64.0%	391.2	4	.000	Sig.
	No	13 54.2%	11 45.8%				
Acute Respiratory Infection	Yes	42 28.0%	108 72.0%	418.9	4	.000	Sig.
	No	43 58.1%	31 41.9%				
Fever	Yes	61 33.9%	119 66.1%	397.0	4	.000	Sig.
	No	24 54.5%	20 45.5%				
Acute loss of weight	Yes	37 30.8%	83 69.2%	395.6	4	.000	Sig.
	No	48 46.2%	56 53.8%				

Table 4.11d shows the result of using a Pearson chi-square test of independence to show the relationship between the types of food giving to infants following the cessation of EBF and the health challenges experienced. Here, a layered crosstab of the Family food by health challenges was shown alongside the Chi Square value, degree of freedom, p-value and the outcome of the chi square test. Here, the association between Family Food and the health challenges was found to be statistically significant with Diarrhea ($X^2(4) = 408.6$, p=0.000), Acute Respiratory Infection ($X^2(4) = 415.0$, p=0.000), Fever ($X^2(4) = 410.7$, p=0.000) and Acute Loss of Weight ($X^2(4) = 413.7$, p=0.000). Therefore, the null hypothesis is hereby rejected and the alternative hypothesis accepted.

$H_0$4: There is no significant relationship between cessation period and onset of diseases experienced by the infants.

Table 4.12 shows the result of using a Pearson chi-square test of independence to show the relationship between the cessation period and onset of diseases experienced by infants. Here, a layered crosstab of the Cessation period of EBF by health challenges was shown alongside the Chi Square value, degree of freedom, p-value and the outcome of the chi square test. Here, the association between cessation period of exclusive breastfeeding and onset of diseases experienced by infants was found to be statistically significant with Diarrhea ($X^2(10) = 394.5$, p=0.000), Acute Respiratory Infection ($X^2(10) = 398.9$, p=0.000), Fever ($X^2(10) = 389.5$, p=0.000) and Acute Loss of Weight ($X^2(10) = 403.3$, p=0.000). Therefore, the null hypothesis is hereby rejected and the alternative hypothesis accepted

Table 4.11d: Association between Family Food and health challenges experienced

Description		X^2	DF	p-value	Outcome

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		I gave Family Food					
Health Challenges		Yes	No				
Diarrhea	Yes	153 76.5%	47 23.5%	408.6	4	.000	Sig.
	No	10 41.7%	14 58.3%				
Acute Respiratory Infection	Yes	122 81.3%	28 18.7%	415.0	4	.000	Sig.
	No	41 55.4%	33 44.6%				
Fever	Yes	141 78.3%	39 21.7%	410.7	4	.000	Sig.
	No	22 50.0%	22 50.0%				
Acute loss of weight	Yes	74 61.7%	46 38.3%	413.7	4	.000	Sig.
	No	89 85.6%	15 14.4%				

Table 4.12: Association between cessation period and onset of diseases experienced by the infants

Description							X^2	DF	p-value	Outcome
		Cessation period of exclusive breast-feeding								
Health Challenges		2 Weeks	3 Weeks	2 Months	3 Months	4 Months				
Diarrhea	Yes	73 (36.5%)	104 (52.0%)	7 (3.5%)	10 (5.0%)	6 (3.0%)	394.5	10	0.000	Sig.
	No	12 (50.0%)	8 (33.3%)	2 (8.3%)	2 (8.3%)	0 (0.0%)				
Acute Respiratory Infection	Yes	57 (38.0%)	79 (52.7%)	3 (2.0%)	6 (4.0%)	5 (3.3%)	398.9	10	0.000	Sig.
	No	28 (37.8%)	33 (44.6%)	6 (8.1%)	6 (8.1%)	1 (1.4%)				
Fever	Yes	66 (36.7%)	93 (51.7%)	6 (3.3%)	10 (5.6%)	5 (2.8%)	389.5	10	0.000	Sig.
	No	19 (43.2%)	19 (43.2%)	3 (6.8%)	2 (4.5%)	1 (2.3%)				
Acute loss of weight	Yes	56 (46.7%)	51 (42.5%)	3 (2.5%)	6 (5.0%)	4 (3.3%)	403.3	10	0.000	Sig.
	No	29 (27.9%)	61 (58.7%)	6 (5.8%)	6 (5.8%)	2 (1.9%)				

Conclusion

Based on the findings, respondents have average knowledge on EBF, there are many false beliefs about EBF. Breastfeeding mothers are faced with multiple challenges as they strive to practice exclusive breastfeeding thus resulting into serious health challenges. Thus, there is an urgent need of policies that will aim at providing acceptable food supplements that could aid the supply of breast milk among postpartum mothers, especially those with low socio-economic status. Similarly, policies aimed at improving exclusive breastfeeding uptake should also incorporate significant others (grandmothers, mothers-in-laws, and husbands) in the process of encouraging breastfeeding mothers. There is an indication that significant others play active roles in encouraging or discouraging exclusive breastfeeding practices among the study population.

Recommendations

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Based on the findings from this study, the following recommendations were made:

1. Promotion of women's education, husbands' engagement, encouraging antenatal care and exclusive breastfeeding counseling during antenatal care were recommended to improve exclusive breastfeeding practice.
2. All levels of healthcare workers should be involved with EBF education.
3. To promote well-baby visits, antenatal and early postpartum education, and also during home visits by community health workers, should improve maternal knowledge and attitudes toward breastfeeding practice.
4. To create training program for health care providers to improve mother's knowledge on exclusive breastfeeding.

To create interventions that will improve and strengthened EBF counseling within the health system.

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