



## Determinants of Exclusive Breastfeeding Practice among Mothers Attending Infant Welfare Clinic in Obafemi Owode Primary Health Centres, Ogun State, Nigeria

<sup>1</sup>AKINPELU, Fausat Bolanle, <sup>2</sup>ADEMUYIWA, Iyabo Yewande

<sup>1</sup>(Babcock University, Ilishan-Remo, Ogun State)

<sup>2</sup>(Department of Nursing Science, Faculty of Clinical Sciences, University of Lagos, Idi-Araba, Lagos State)

Corresponding Author: AKINPELU Fausat Bolanle

(Babcock University, Ilishan-Remo, Ogun State)

**ABSTRACT:** Exclusive breastfeeding is one of the strategies to improve nutritional status and growth in children. This is due to the fact that feeding infant exclusively with breastmilk only for the first six months of life avert major causes of neonatal illnesses and death. Hence, the main objective of this study is to examine the determinants of exclusive breastfeeding practice among mothers attending infant welfare clinic, in Obafemi Owode Primary health centers Ogun State. The study adopted a descriptive survey research design and multistage sampling technique was used for the study. The sample consisted of 420 respondents' selected using convenient sampling technique. The instrument used for data collection was a self-developed structured questionnaire with reliability index of 0.78. Data collected were analysed using percentages, frequencies, chi-square and regression. The result shows high level of respondent knowledge 285 (67.9%) about EBF, 292 (69.5%) of the respondents has positive attitude while 333(50.9%) demonstrated good practice of exclusive breastfeeding. Determinants of exclusive breastfeeding practice identified from the study were knowledge, attitude and cultural practices. The finding further revealed that there is a statistically significant relationship between level of knowledge, attitude, cultural beliefs of respondents and practice of EBF with p- value of 0.000 at 0.05 level of significance. In conclusion, there is need for nurses and midwives to always evaluate mothers knowledge about and attitude towards exclusive breastfeeding during antenatal visit and encourage continuous education and reiteration of the benefits of exclusive breastfeeding at every point of contact with the mothers to improve EBF practice.

**KEYWORDS:** Determinants, Exclusive Breastfeeding, Practice, Infant Welfare Clinic, Breastmilk

Received 06 July, 2021; Revised: 18 July, 2021; Accepted 20 July, 2021 © The author(s) 2021.

Published with open access at [www.questjournals.org](http://www.questjournals.org)

### I. INTRODUCTION

Breastfeeding is one of the most effective strategies to ensure child health and survival and remains an important source of protection for the newborn baby. World Health Organization [1] recommended exclusive breastfeeding up to six months of age, with continued breastfeeding up to 2 years and more because the lives of over 800,000 children under 5 years of age could be saved annually through optimal breastfeeding of children younger than 2 years. However, nearly 2 out of 3 infants are not exclusively breastfed for the recommended 6 months, a rate that has not improved in 2 decades[2].

Globally, studies have shown that only 43% of newborns have breastfeeding initiated within one hour of birth, and 40% of infants aged six months or less are exclusively breastfed [3]. Moreso, in sub-Saharan Africa, evidence suggests of early initiation of breastfeeding ranges from 37.8% to 69.3% while the prevalence of exclusive breastfeeding ranges from 23.7% to 56.5% [4]. A recent national survey suggested that only 29% of infants less than six months were exclusively breastfed in Nigeria [5]

However, according to Nigeria Labour Law [5], female public sector employees have been granted 16 weeks of maternity leave at full pay, and two hours off-duty every day once back to work to breastfeed or express breastmilk while the public service rules have been revised to include the 16 weeks maternity leave for public service employees, the law itself has not been revised [5]. More so, Lagos State Government in a bid to promote, support and advocate for Exclusive breastfeeding in 2014, maternity leave was increased for public

sector employees from three months to six months with full pay, and approved a 10 days paternity leave for male civil servants and advised other private organizations in the state to follow suit [6].

Breastfeeding an infant exclusively for the first 6 months of life carries numerous benefits which prevent and lowers risks of pneumonia, otitis media, gastrointestinal infection and urinary infection in the infant. Moreso, maternal benefits of breastfeeding includes reduced risk of breast and ovarian cancer, type 2 diabetes and postpartum depression as well as reduction in health care related cost and fewer absences from work [7]. Furthermore, optimal breastfeeding practices are linked to achieving second global SDG (sustainable development goal) which focuses on improving nutrition and ending hunger while the third SDG aims at ensuring healthy lives and promoting the well-being of individual of all ages [8]. In other words, promotion of breastfeeding in all countries will be an important strategy in achieving these goals among infants and young children [9]. Moreso, studies have shown that there is need to identify at-risk women so that they can be offered additional breastfeeding support and close monitoring of their infants growth and development. According to [7], the major challenge militating against the adherence to exclusive breastfeeding practice by the nursing mothers is likely to be due to their knowledge, attitude and educational status about it.

Osibogun, Olufunmilayo & Oyibo [10] stated that factors affecting exclusive breastfeeding practices are socio-economic characteristics of the mother and family, structural and social support, health and risk status of both mother and infants, mothers knowledge, attitudes and skills, aspects of the feeding regimen/ practices. Also, government health services policies and practices, sociocultural and environmental factors are described as issues surrounding non achievement of the 4<sup>th</sup> millennium development goal [10]. Moreover, breastfeeding practice are often culture dependent, hence, a proper understanding of the factors that influence them in any particular cultural setting is important in designing successful interventions [8]. There appears to be universal awareness about exclusive breastfeeding among women in many countries; “however, breastfeeding practices are often not aligned as expected with recommendations [8].

In Nigeria today, exclusive breastfeeding is gradually being jettisoned and some of these problems can be overcome if the woman is informed during their antenatal and immunization follow-up on the benefits of breastfeeding and prepare them psychologically to exclusively breastfeed their babies [11]. It is in view of the gap observed that the researcher became interested in identifying the determinant that influences Exclusive Breastfeeding Practice among mothers attending infant welfare clinic in Obafemi Owode Primary Health Centre. This study was guided by the following research questions

- i. What is the level of knowledge of the mothers about exclusive breastfeeding?
- ii. What are the attitudes of postnatal mothers towards exclusive breastfeeding practice?
- iii. What are the determinants of exclusive breastfeeding among postnatal mothers?

## **II. MATERIALS AND METHODS**

**Design:** The study employed the descriptive survey research design where the variables were surveyed and described. The study population comprised mothers attending infant welfare clinic at selected eight (8) primary health centres at Obafemi Owode Local Government Area, Ogun State. The sample consisted of 420 mothers selected from the primary health centres using convenience sampling technique. The sample size was calculated using Cochran’s Formula ( $n = \frac{z^2pq}{d^2}$ ).  $n$ =sample size,  $z=1.96$  which corresponds to 95% confidence level,  $p$ =prevalence rate of 52.9% (Okafor, Olatona & Olufemi, 2014),  $q=1-p$ ,  $d=0.05$  margin of error

**Settings:** The study was conducted among nursing mothers at eight (8) selected primary health centres out of the 22 primary health centres in Obafemi owode local government area in Ogun State, using multistage sampling technique which involves four (4) stages viz: First stage involves selection of one senatorial district out of the three senatorial district in Ogun State (Ogun East, Ogun Central, and Ogun West ) using simple random sampling technique. Therefore Ogun central senatorial district was selected; Second stage involves selection of one local government area out of six (6) local government area in Ogun central Senatorial district using simple random technique, therefore Obafemi Owode local government area was selected. Third stage also involve random selection of eight (8) PHC out of the 22 PHC in Obafemi Owode local government, The fourth stage involves selection of samples using convenience sampling technique.

**Instrument:** A self-structured Questionnaire was used to obtained data from the participants. The instrument is divided into five sections. Section A consists of socio-demographic data of age, educational status, occupation, marital status as determinants of exclusive breastfeeding. Section B elicits information on knowledge of mothers on exclusive breastfeeding. The items were 20. Highest possible score is 20 while the lowest possible score is (yes) 1 while the lowest possible score (No) is 0, the score between 1-7 is considered low knowledge, 8-14 is considered moderate while the score between 15-20 is considered high knowledge. Section C elicits information on practice of exclusive breastfeeding using likert scale strongly agreed (SA=5), Agree (A=4), Undecided (U=3), Disagree (D=2), Strongly Disagree (SD=1). It consists of 10 items. The score between 1-25 is considered poor breastfeeding practice while the score between 26-50 is considered good breast feeding practice Section D

also elicits information on attitude of mothers towards exclusive breastfeeding using likert scale strongly agreed (SA=5),s Agree (A=4), Undecided (U=3), Disagree (D=2), Strongly Disagree (SD=1). The total items are 10. The highest attitude score is 50 while the lowest is 1. The score between 1-25 is considered negative attitude, while the score between 26 -50 is considered positive attitude. Section E consists of information on socio-economic influence of practice of exclusive breastfeeding and Section E elicits information on influence of cultural beliefs on exclusive breastfeeding. Face and content validity of the instrument was done by experts in test and measurement who checked the psychometric properties of the questionnaire and confirmed that the contents and the structure of the questionnaire were satisfactory. In addition, a pilot study was conducted among 42 nursing mothers who are selected outside the study sample. Internal reliability of the questionnaire was determined using Cronbach Alpha coefficient and the value was found to be 0.78.

**Statistical Analysis:** Data obtained were coded and analysed using statistical package for social sciences (IBM SPSS) version 21.0; variables were analyzed using descriptive statistics of table and percentages while hypothesis were tested using chi-square and ANOVA.

**Ethical Consideration:** Ethical approval for the study was collected from Babcock University Health Research Ethics Committee (BUHREC 232/21). Also, the researcher had obligation to the subjects by getting their informed consent consistent with the principle of individual autonomy. Their voluntary participation, anonymity, privacy and confidentiality when collecting the data were also guaranteed. Their right to participate and not to participate was duly respected and any respondents that want to opt out during the study were allowed.

### III. RESULTS

**Table 1: Socio-demographic characteristics of the respondents (n=420)**

Variables	Frequency	Percentage
<b>Age</b>		
15-20 Years	21	5.0
21-25 Years	95	22.6
26-30 Years	101	24.0
>30 Years	203	48.3
<b>Total</b>	<b>420</b>	<b>100.0</b>
<b>Marital status</b>		
Married	398	94.8
Single	22	5.2
<b>Total</b>	<b>420</b>	<b>100.0</b>
<b>Ethnicity</b>		
Yoruba	314	74.8
Ibo	63	15.0
Hausa	43	10.2
<b>Total</b>	<b>420</b>	<b>100.0</b>
<b>Religion</b>		
Christianity	283	67.4
Muslim	95	22.6
Traditional	42	10.0
<b>Total</b>	<b>420</b>	<b>100.0</b>
<b>Variables</b>	<b>Frequency</b>	<b>Percentages</b>
<b>Level of Education</b>		
Primary school	42	10.0
Secondary school	177	39.8
Tertiary institution	178	42.4
Others	33	7.9
<b>Total</b>	<b>420</b>	<b>100.0</b>
<b>Occupation</b>		
House Wife	98	23.3
Civil Servant	53	12.6
Self-Employed	246	58.6
Others	23	5.5
<b>Total</b>	<b>420</b>	<b>100.0</b>
<b>Level of income</b>		
<20,000 NAIRA	100	23.8
21,000-50,000 NAIRA	238	56.7
51,000-80,000 NAIRA	82	19.5
<b>Total</b>	<b>420</b>	<b>100.0</b>

Forty-eight point three percent of the respondents were more than 30 years of age followed, almost all 398(94.7%) were married, about three-fourth 214(74.8%) of the respondent were Yoruba and more than half 283(67.4%) were Christians. The result also reveals that majority 178(42.4%) of the respondents had tertiary educational level while about one-third 177(39.8%) of the respondents had secondary level of education. More than half 246(58.6%) of the respondents were self-employed and earn between 21,000-50,000 , 238(56.7%) naira as monthly income. Descriptive statistics of socio-demographic characteristics are presented in Table 1.

**Table 2: Knowledge of Nursing Mothers on exclusive breastfeeding (n=420)**

Knowledge	Frequency	Percentage
High knowledge (1-7)	285	67.9
Moderate knowledge (8-14)	95	22.6
Low knowledge (15-20)	40	9.5
<b>Total</b>	<b>420</b>	<b>100.0</b>

Sixty-seven point nine percent (n=420) of the respondents had good knowledge about exclusive breastfeeding, about one-fourth had moderate knowledge while 40(9.5%) had poor knowledge about exclusive breastfeeding as presented in Table 2.

**Table 3: Attitude of Nursing Mothers on exclusive breastfeeding practice (n=420)**

Attitude	Frequency	Percentage
Positive attitude (26-50)	292	69.5
Negative attitude (1-25)	128	30.5
<b>Total</b>	<b>420</b>	<b>100.0</b>

Sixty-nine point five percent of the respondents had good attitude towards exclusive breastfeeding while about one-third 128(30.5) of the respondents showed poor attitude towards exclusive breastfeeding as presented in Table 3

**Table 4: Practice of exclusive breastfeeding (n=420)**

Practice of exclusive breastfeeding	Frequency	Percentages
Good breastfeeding practice (26-50)	333	79.3
Poor breastfeeding practice (1-25)	87	20.7
<b>Total</b>	<b>420</b>	<b>100.0</b>

Seventy-nine point three percent of the respondent practiced exclusive breastfeeding, however, about one-fifth 87(20.7%) of the respondents never practiced exclusive breastfeeding as presented in Table 4.

**Table 5: Cultural beliefs influencing exclusive breastfeeding practice (n=420)**

Cultural beliefs	SA	A	U	D	SD
	F(%)	F(%)	F(%)	F(%)	F(%)
Colostrums is "medicine" but 'taboo' in some communities	50(11.9)	82(19.5)	188(44.8)	40(9.5)	60(14.3)
Children are always hungry, right from birth"	250(59.5)	70(16.7)	30(7.1)	32(7.6)	38(9.0)
Exclusive breastfeeding is beneficial, but there are exceptions	282(67.1)	50(11.9)	10(2.4)	40(9.5)	38(9.0)
Bad Omen (Curse)" if you breastfeed in some circumstances	264(62.9)	68(16.2)	8(1.9)	47(11.2)	33(7.9)
Exclusive breastfeeding will make the Breasts sag	263(62.6)	67(16.0)	8(1.9)	47(11.2)	35(8.3)
It's a religious recommendation	320(76.2)	30(7.1)	10(2.4)	40(9.5)	20(4.8)
Evil eye" if you breastfeed in public	81(19.3)	22(5.2)	250(59.5)	27(6.4)	40(9.5)
Boys are not breastfed the same as girls	237(56.4)	91(21.7)	6(1.4)	56(13.3)	30(7.1)

Forty-four point eight percent of the respondents were undecided that colostrums is "medicine" but 'taboo' in some communities, more than half 250(59.5%) of the respondents strongly agreed that children are always hungry, right from birth, two-third 282(67.1%) strongly agreed that exclusive breastfeeding is beneficial, but there are exceptions, 264(62.9) strongly agreed that it is bad Omen (Curse)" if mother breastfeed in some circumstances, 263(62.6%) strongly agreed that exclusive breastfeeding will make the breasts sag, more than three-fourth 320(76.2) of the respondents strongly agreed that exclusive breastfeeding is a religious recommendation, 250(59.5) were undecided that evil eye" if mother breastfeed in public while 237(56.4) strongly agreed that boys are not breastfed the same as girls as presented in Table 5.

**Table 6: Relationship between socio-economics characteristics and practice of exclusive breastfeeding (n=420)**

Socio-economic status	Practice of exclusive breastfeeding		Total	X <sup>2</sup>	Df	P-Value
	Yes F(%)	No F(%)				
<b>Level of education</b>						
Primary school level	29(8.7)	13(14.9)	42 ()			
Secondary level	152(45.6)	15(17.2)	167			
Tertiary level	124(37.2)	54(62.1)	178			
Post graduate level	28(8.4)	5(5.7)	33			
<b>Total</b>	<b>333(100)</b>	<b>87</b>	<b>420</b>	<b>27.334</b>	<b>3</b>	<b>0.000</b>
<b>Occupation</b>						
House wife	93(27.9)	5(5.7)	98			
Civil servants	41(12.3)	12(13.8)	53			
Self-employed	186(55.9)	60(68.9)	246			
Others	13(3.9)	10(11.5)	23			
<b>Total</b>	<b>333(100)</b>	<b>87(100)</b>	<b>420</b>	<b>23.945</b>	<b>3</b>	<b>0.000</b>
<b>Level of income</b>						
<20,000	95(28.5)	5(5.7)	100			
21,000-50,000	218(65.5)	20(23.0)	238			
51,000-80,000	20(6.0)	62(71.3)	82			
<b>Total</b>	<b>333(100)</b>	<b>87(100)</b>	<b>420</b>	<b>187.459</b>	<b>2</b>	<b>0.000</b>

Forty-five point six percent of the respondents that practice exclusive breastfeeding had secondary and 124(37.2%) had tertiary level of education. Fifty –five point nine percent of the respondent that practice exclusive breastfeeding were self-employed and earn between 21,000-50,000 naira monthly 218(65.5%). There is also a significant relationship between level of education, occupation and level of income and practice of exclusive breastfeeding as presented in table 6.

**Table 7: Relationship between level of knowledge and practice of exclusive breastfeeding (n=420)**

Knowledge of breastfeeding	Practice of exclusive breastfeeding		Total	X <sup>2</sup>	Df	P-Value
	Yes F(%)	No F(%)				
Good knowledge	265(80.0%)	20	285			
Moderate knowledge	56	39	95			
Poor knowledge	12	28	40			
<b>Total</b>	<b>333</b>	<b>87</b>	<b>420</b>	<b>115.643</b>	<b>2</b>	<b>0.000</b>

There is a significant relationship between level of knowledge and practice of exclusive breastfeeding ( $x^2=115.643$ ;df =2; p- value =0.000), thus, the null hypothesis was rejected while alternate hypothesis was accepted as presented in Table 7.

**Table 8: Relationship between knowledge and attitude of exclusive breastfeeding (n=420)**

Knowledge of exclusive breastfeeding	Attitude towards exclusive breast feeding		Total	X <sup>2</sup>	Df	P-Value
	Good F(%)	Poor F(%)				
Good Knowledge	280(96.0)	5 (3.9)	285(67.9)			
Moderate Knowledge	7(2.3)	88(68.8)	95(22.6)			
Poor Knowledge	5(1.7)	35(27.3)	40(9.5)	<b>345.565</b>	<b>2</b>	<b>0.000</b>
<b>Total</b>	<b>292(100)</b>	<b>128(100)</b>	<b>420(100)</b>			

There is a significant relationship between knowledge and attitude towards exclusive breastfeeding ( $x^2=345.565$ ; df= 2; p- value= 0.000).The null hypothesis was rejected, thus alternate hypothesis was accepted. Moreso, vast majority 280(95.9%) of the respondent with good knowledge on exclusive breastfeeding had positive attitude towards exclusive breastfeeding as presented in Table 8.

**Table 9: Relationship between cultural factors and practice of exclusive breastfeeding ANOVA<sup>a</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	64.292	8	8.036	704.732	.000 <sup>b</sup>
Residual	4.687	411	.011		
Total	68.979	419			

a. Dependent Variable: Practice of Breastfeeding

b. Predictors: (Constant), Cultural factors

There is a statistically significant ( $p$ -value = 0.000) relationship between respondents' cultural belief and practice of exclusive breastfeeding at 0.05 level of significance as presented in Table 8.

#### IV. DISCUSSION

Finding from the study shows the respondents' mean age of  $28.7 \pm 5.2$  years. Majority 203(48.3%) of the respondents were more than 30 year of age, almost all 398(94.7%) were married, about three-fourth 214(74.8%) of the respondent were Yoruba and more than half 283(67.4%) were Christians. Bhanderi, Pandya and Sharma [12] also recorded mean age of  $24.6 \pm 3.5$  years with significant association between maternal age and exclusive breastfeeding. Jama et al. [13] also reported mean age of 27.10 (+ 5.1) years and majority were between ages 25-34 years. Arage and Gedamu [14] reported mean age of 28.4 years and majority were married. The finding from the study reveals that majority of the respondents had tertiary educational level while about one-third of the respondents had secondary level of education. More than half of the respondents were self-employed and earned between 21,000-50,000 naira as monthly income. Majority of the respondents that practice exclusive breastfeeding had secondary and tertiary level of education. More than half of the respondent that practice exclusive breastfeeding were self-employed and earn between 21,000-50,000 naira monthly. There is also a significant relationship between level of education, occupation and level of income and practice of exclusive breastfeeding. In line with the result of this study, [15] reported that socio-economic status significantly associated with duration of breastfeeding and in those with middle socio-economic status, duration of breastfeeding was higher than the low and high socio-economic group.

Therefore socio-economic factors were reported to be predictor of exclusive breastfeeding. Moreso, [16] reported that a determinant of breastfeeding cessation differs between socioeconomic groups as carrier mothers tend to stop breastfeeding earlier than self-employed mothers. Mawa et al [17] also concluded that there is an inverse relationship between household socio-economic status and exclusive breastfeeding among infant below six months of age. However the findings are in contrast with those of a Ugandan cross-sectional study that found no association between maternal occupation and exclusive breastfeeding among infants below six months of age and that of an Ethiopian study that found a positive association between maternal unemployment and exclusive breastfeeding [18]. They further concluded that with higher educations who were employed at the same time had less breastfeeding. This suggests that workplace support, although have promoted in recent years, is not sufficient to prevent breaking of EBF. Jahanpour et al. [19] reported the influence of mothers' educational level on their decision to exclusively breastfeed. Mothers who had no formal education were more unlikely to practice exclusive breastfeeding than their peers with higher education as mothers with no education tend not to be well informed about the benefits of exclusive breastfeeding as compared to their counterparts with higher education [20].

The finding of this study shows that there was high level of knowledge about exclusive breastfeeding among nursing mothers. This finding is in line with the findings of [21] that reveals high level of nursing mother about exclusive breastfeeding. Moreso, [21] suggested that mothers with a high level of knowledge about the importance of exclusive breastfeeding know that only breast milk is nutritionally important for the baby in the first six months, the right time to give breast milk to the child within one hour after birth. [22] reported high level of knowledge and awareness of exclusive breastfeeding among nursing mothers. Most mothers were aware that exclusive breastfeeding should span over a period of 6 months and correctly indicated that initiation of breastfeeding should be within the first hour after delivery [23]

The findings of this study showed positive attitude of nursing mothers towards exclusive breastfeeding. The result shows that the mothers have good attitude towards breastfeeding which was translated into good practice of breastfeeding. This result was corroborated with the result of [24] which shows that positive maternal attitude towards breastfeeding are associated with practice of breastfeeding and have greater chances of successful breastfeeding. Therefore mothers with positive attitude towards exclusive breastfeeding are likely to exclusively breastfeed their babies.

The findings of this study further shows a high level of exclusive breastfeeding practices among nursing mothers. The result from the study is slightly different from result of [22] that showed 67% prevalence of exclusive breastfeeding among infant below six months of age. Moreso, WHO (2018) reported a very low rate of 41% of exclusive breastfeeding in their most recent breastfeeding scored card. The finding is also above the Kenya (61%) exclusive breastfeeding rate as well as Tanzania (59%) [3]. Nevertheless, the result from the findings has achieved the WHO.UNICEF 2025 and 2030 exclusive breastfeeding prevalence target of 50% and 70% respectively among infant below 6 month of age [2]. Najafi-Sharjabad and Mohammadi [24] stated that most of the mothers have breastfed their children, but only 55.9% of mothers had exclusively breastfed their child for the first six months, even though most mothers have heard of EBF and consider it important for the health of the women and the baby [24].

The findings of this study shows that majority of the respondents were undecided that colostrums is “medicine” but ‘taboo’ in some communities, more than half of the respondents strongly agreed that children are always hungry, right from birth, two-third strongly agreed that exclusive breastfeeding is beneficial, but there are exceptions, highest proportion of the respondents strongly agreed that it is bad Omen (Curse)” if mother breastfeed in some circumstances, majority strongly agreed that exclusive breastfeeding will make the Breasts sag, more than three-fourth of the respondents strongly agreed that exclusive breastfeeding is a religious recommendation, more than half were undecided that evil eye” if mother breastfeed in public that boys are not breastfed the same as girls. The findings of this study showed that cultural inclination has some elements of influence on the practice of exclusive breastfeeding. This is supported by [25] that most mothers disagreed that giving breast milk for newborn colostrums immediately and within an hour is important and exclusive breastfeeding is enough for a child up to six months. However, breastfeeding increases mother infant bonding and breastfed infants are healthier than formula fed babies, although formula feeding is more convenient than breastfeeding [19]. Volk and Franklin [26] also reported that cultural beliefs that baby boy need solid foods immediately because they make them strong and healthy, and if the child is breastfed on breast milk alone for six months, the bone gets weak.

The finding from the study shows that there is a statistically significant relationship between level of knowledge of the respondents and practice of exclusive breastfeeding with p-value of 0.000 at 0.05 level of significance as majority of respondents with good knowledge of exclusive breastfeeding practice exclusive breastfeeding. The null hypothesis is rejected and alternate hypothesis is accepted. This result is supported by [27] that decision regarding the initiation and duration of breastfeed in low income countries are influenced by knowledge of nursing mothers on the importance of exclusive breast feeding.

EBF knowledge and sources of information about EBF were found to be significant predictors of good intention to practice EBF. This finding is in line with studies by [28] also suggested that mothers who accessed antenatal care services during pregnancy were more likely to practice exclusive breastfeeding as appropriate key messages were usually delivered during antenatal care services. Therefore, if pregnant women are educated and counseled properly on the benefits of exclusive breastfeeding, they are more likely to practice EBF than their peers who are not counseled. Similarly, varied sources of information on EBF such as midwives, doctors, friends, media, and peers amongst others had also strengthened their EBF knowledge, thereby influencing their decisions to practice EBF [29][30].

The result further shows a significant relationship between knowledge and attitude of nursing mothers towards exclusive breastfeeding with p-value of 0.000 at 0.05 level of significance. Vast majority of the respondent with good knowledge had positive attitude towards exclusive breastfeeding. Adebayo [31] stated that educational background of mothers was found to be a significant predictor of good intention to practice EBF. To a large extent, educated women tend to follow the antenatal instructions to the letter, thereby changing their attitudes towards practice of EBF. Moreso, attitude of nursing mothers towards exclusive breastfeeding is influenced by mothers’ age, ethnicity, and educational status [32].

The result from the study shows a statistically significant (p-value = 0.000) relationship between respondents’ cultural belief and practice of exclusive breastfeeding at 0.05 level of significance. [27] reported that cultural beliefs about first fluid to be given to infant after birth (P = 0.001), timing of first fluid given to infant (P-value = 0.04), duration of breastfeeding before commencing weaning (P < 0.0001) and most popular practice of infant feeding in the first six months of life (P = 0.001) were statistically significant, while beliefs about colostrum (P = 0.067) and culture being opposed to exclusive breastfeeding (P = 0.34) were not statistically significant. In view of this [32] opined that a behaviour strategy based on the essential nutrition action framework which targeted health workers, community members, families and women with practical skill-based training to promote optimal infant feeding practices and dispel cultural myth associated with exclusive breastfeeding may likely to hold much potential for improving the adoption of the initiation and practice of exclusive breastfeeding.

## **V. CONCLUSION**

Exclusive breastfeeding is one of the essential actions for development and survival of infants. This study revealed high level of knowledge on exclusive breastfeeding among nursing mothers, positive attitude was also expressed among mothers and high level of breastfeeding practice. There is also a significant relationship between knowledge, knowledge, attitude, socio-economic status, cultural beliefs and practice of exclusive breast feeding among nursing mothers, therefore, knowledge, attitude, socio-economic status and cultural beliefs are identified determinants of exclusive breastfeeding from the study. In view of result from the study, it is recommended that more education and reiteration of the benefits of Exclusive Breastfeeding should be carried out by midwives and other health workers at every point of contact with mothers so as to improve their knowledge on exclusive breastfeeding practice.

**Limitation of the study:** The study focused on nursing mothers attending primary health centres not including those in secondary and tertiary health facilities. The result may not be generalized to other nursing mothers that are not attending primary health centres. Therefore, this study will provide a foundation for further study that will include all categories of nursing mothers attending other health facilities.

**Acknowledgement:** Our heartfelt gratitude goes to the local government health authority for permission to conduct the study among nursing mothers attending primary health facilities used for the study. Also we appreciate the effort of all the nursing mothers that were present at the time of collecting data.

## REFERENCES

- [1]. WHO. (2019, 02 11). *Exclusive breastfeeding for optimal growth, development, and health of infants* . Retrieved from World Health Organization:
- [2]. World Health Organization. (2020). Protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services: the revised Baby-friendly Hospital initiative: 2018 implementation guidance: frequently asked questions.
- [3]. World Health Organization. (2018). Implementation guidance: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services: the revised baby-friendly hospital initiative.
- [4]. Issaka A.I., Agho, K. E. and Renzaho, A. M. N. (2017). Prevalence of key breastfeeding indicators in 29 sub-Saharan African countries: a metaanalysis of demographic and health surveys (2010–2015). *BMJ Open*: 7(10):
- [5]. Rollins, N. C., Bhandari, N., Hajeebhoy, N., Horton, S., Lutter, C. K., Martines, J. C., ... & Group, T. L. B. S. (2016). Why invest, and what it will take to improve breastfeeding practices?. *The lancet*, 387(10017), 491-504.
- [6]. Eshemokha, U. (2019). States with 6 months maternity leave. NIMED health: Retrieved from <https://nimedhealth.com.ng/2019/05/31/maternity-leave-in-kaduna-it-is-now-6-months/>
- [7]. Manoj, N. K. A., A. Mithrasan and V. Thomas. 2018. Knowledge, attitude and determinants of breastfeeding among antenatal women at a teaching hospital at Wayanad, Kerala: A cross-sectional study. *Int. J. Med. Paediatr. Oncol.* 4: 98-103.
- [8]. Akadri, A. & Odetola, O. (2020). Breastfeeding Practices among Mothers in Southwest Nigeria. *Ethiop J Health Sci*, 30(5), 697–706.
- [9]. Katsinde SM, Srinivas SC. Breast feeding and the sustainable development agenda. *Indian Journal of Pharmacy Practice* 2016; 9(3): 144-146
- [10]. Osibogun, O. O. (2018). Knowledge, attitude and support for exclusive breastfeeding among bankers in Mainland Local Government in Lagos. *International Breastfeeding Journal*, 13(38).
- [11]. Ihudiebube-Splendor, C., N., Okafor, B., C. Anarado, N., A. Jisieike-Onuigbo, N., N., Chinweuba, U., A., Nwaneri, C., A. and Joyce C. (2019). Exclusive Breastfeeding Knowledge, Intention to Practice and Predictors among Primiparous Women in Enugu South-East, Nigeria. *Journal of Pregnancy*, 2019(9832075).
- [12]. Bhandari, D. J., Pandya, Y. P., & Sharma, D. B. (2019). Barriers to exclusive breastfeeding in rural community of central Gujarat, India. *Journal of family medicine and primary care*, 8(1), 54.
- [13]. Arage, G., & Gedamu, H. (2016). Exclusive breastfeeding practice and its associated factors among mothers of infants less than six months of age in Debre Tabor town, Northwest Ethiopia: a cross-sectional study. *Advances in Public Health*, 2016.
- [14]. Ajami, M., Abdollahi, M., Salehi, F., Oldewage-Theron, W., & Jamshidi-Naeini, Y. (2018). The association between household socioeconomic status, breastfeeding, and infants' anthropometric indices. *International journal of preventive medicine*, 9.
- [15]. Temple Newhook, J., Newhook, L. A., Midodzi, W. K., Murphy Goodridge, J., Burrage, L., Gill, N., ... & Twells, L. (2017). Poverty and breastfeeding: comparing determinants of early breastfeeding cessation incidence in socioeconomically marginalized and privileged populations in the FiNaL study. *Health Equity*, 1(1), 96-102.
- [16]. Mawa, R., Nabasirye, C. K., Mulira, J., Nakidde, C., Kalyango, F., Wakida, D. M. A. A., ... & Sharma, K. N. (2019). Socio-Economic Status and Exclusive Breastfeeding Among Infants in a Ugandan Cross-Sectional Study. *Journal of Food and Nutrition Sciences*, 7(1), 16-24.
- [17]. Azeze, G. A., Gelaw, K. A., Gebeyehu, N. A., Gesese, M. M., & Mokonnen, T. M. (2019). Exclusive breastfeeding practice and associated factors among mothers in Boditi Town, Wolaita Zone, Southern Ethiopia, 2018: a community-based cross-sectional study. *International journal of pediatrics*, 2019.
- [18]. Jahanpour, O., Msuya, S. E., Todd, J., Stray-Pedersen, B., & Mgongo, M. (2018). Increasing trend of exclusive breastfeeding over 12 years period (2002–2014) among women in Moshi, Tanzania. *BMC pregnancy and childbirth*, 18(1), 1-8..
- [19]. Dukuzumuremyi, P., J., C., Acheampong, K., Abesig, J. & Luo, J. (2020). Knowledge, attitude, and practice of exclusive breastfeeding among mothers in East Africa: a systematic review. *International Breastfeeding Journal*, 15(70).
- [20]. Jama, A., Gebreyesus, H., Wubayehu, T., Gebregyorgis, T., Teweldemedhin, M., Berhe, T., & Berhe, N. (2020). Exclusive breastfeeding for the first six months of life and its associated factors among children age 6-24 months in Burao district, Somaliland. *International breastfeeding journal*, 15(1), 5.
- [21]. Mawa, R., Nabasirye, C. K., Chota, M., Lawoko, S., Schumacher, T. L., & Sharma, K. N. (2019). Socio-Economic Differences in Early Initiation of Breastfeeding Among Children in a Ugandan Cross-Sectional Study. *Journal of Food and Nutrition Sciences*, 7(1), 8-15.
- [22]. Mawa, R., Nabasirye, C. K., Mulira, J., Nakidde, C., Kalyango, F., Wakida, D. M. A. A., ... & Sharma, K. N. (2019). Socio-Economic Status and Exclusive Breastfeeding Among Infants in a Ugandan Cross-Sectional Study. *Journal of Food and Nutrition Sciences*, 7(1), 16-24.
- [23]. Najafi-Sharjabad, F., & Mohammadi, S. (2021). The Prevalence and Determinants of Exclusive Breastfeeding during First Three Months of Infant's Life in Bushehr, Iran: A Cross sectional Community-based Study. *Journal of Midwifery and Reproductive Health*, 9(2), 2738-2746.
- [24]. Ibe, S. N. O., Obasi, O., Nwoke, E. A., Nworu, B. O., Amadi, C. O., & Nwufu, C. R. (2016). Socio-economic Factors Influencing Adoption of Exclusive Breastfeeding Practice by Nursing-Mothers in Selected Communities in Imo State, Nigeria. *Journal of Advances in Medicine and Medical Research*, 1-12.
- [25]. Ibe, S. N. O., Obasi, O., Nwoke, E. A., Nwufu, C. R., Osuala, E. O., Amadi, C. O., & Ezenwuba, C. O. (2017). Influence of parity and index child factors on adoption of exclusive breastfeeding by nursing-mothers in Imo State Nigeria. *Int J Med Res Health Sci*, 4(5), 88-101.
- [26]. Volk, A. A., & Franklin, P. (2020). When is the breast best? Infant feeding as a domain of intrasexual competition. *Evolutionary Behavioral Sciences*, 14(1), 6.

- [27]. Okafor, A. E., Agwu, P. C., Okoye, U. O., Uche, O. A., & Oyeoku, E. K. (2018). Factors associated with exclusive breastfeeding practice among nursing mothers in rural areas of Enugu state and its implications for social work practice in Nigeria. *Social work in public health, 33*(2), 140-148.
- [28]. Alamirew, W., M., Bayu, H., N. ,Tebeje, B., N. and Kassa, F., S. (2017). Knowledge and Attitude towards Exclusive Breast Feeding among Mothers Attending Antenatal and Immunization Clinic at Dabat Health Center, Northwest Ethiopia: A Cross-Sectional Institution Based Study. *Nursing Research and Practice, 2017*(6561028).
- [29]. Ihudiebube-Splendor, C., N., Okafor, B., C. Anarado, N., A. Jisieike-Onuigbo, N., N., Chinweuba, U., A., Nwaneri, C., A. and Joyce C. (2019). Exclusive Breastfeeding Knowledge, Intention to Practice and Predictors among Primiparous Women in Enugu South-East, Nigeria. *Journal of Pregnancy, 2019*(9832075).
- [30]. Asare, B. Y. A., Preko, J. V., Baafi, D., & Dwumfour-Asare, B. (2018). Breastfeeding practices and determinants of exclusive breastfeeding in a cross-sectional study at a child welfare clinic in Tema Manhean, Ghana. *International breastfeeding journal, 13*(1), 1-9.
- [31]. Adebayo, O. O. (2020). Knowledge, Practice and Challenges of Exclusive Breastfeeding among working mothers attending antenatal clinic in Lagos University Teaching Hospital, Idiaraba.
- [32]. Muzoora, A. K. (2019). *Maternal Health Care Utilization and Early Initiation of Breastfeeding in South Western and East Central Uganda* (Doctoral dissertation, Makerere University).