

## Maternal Knowledge and Practice of Exclusive Breastfeeding in a Secondary Health Facility in Southern Nigeria



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### ABSTRACT

**Introduction:** In Nigeria particularly, many changes in infant feeding practices have occurred over time due to the introduction of alien cultures and the effects of urbanization.<sup>10</sup> This is of grave concern, because of the net advantage of exclusive breastfeeding in reducing childhood morbidity and mortality.

**Methodology:** This was a cross sectional descriptive study conducted amongst mothers attending antenatal clinic in a secondary health facility in Benin City Nigeria. Maternal knowledge and practice of exclusive breastfeeding was assessed using structured pretested questionnaires. A total of 200 mothers were selected using simple random sampling.

**Results:** Majority of the mothers were between the age group of 30- 39years, and had tertiary education(45.5%, and 56% respectively). Majority ( 179 ;89.5%) of respondents were aware of Exclusive Breastfeeding out of which 160 (89.4%) knew the correct definition of exclusive breastfeeding. Overall, good and poor knowledge of exclusive breastfeeding among respondents was 80.0% and 20.0% respectively.

**Conclusion:** This study showed that despite the high proportion of mothers with good knowledge of exclusive breastfeeding, the percentage of mothers practicing exclusive breastfeeding was not so high.

### INTRODUCTION

Breastfeeding is the process by which nutrition is provided to a child by putting the mother's (or surrogate's) nipple into the mouth of the child.<sup>1</sup>

It is an integral part of the reproductive process of the mother, with far reaching implications for her health as well as the health of her baby.<sup>2</sup>

Its advantages for the mother includes: prevention of ovarian and breast cancer, child spacing, optimal mother to child bonding as well as reduced feeding cost.<sup>2</sup> For the infant, it is considered a rich source of immunoglobulins which are protective against early childhood diseases. Other advantages include: reduce incidences of allergies , necrotizing enterocolitis and obesity, improved neuro-cognitive development amongst others.<sup>3-5</sup>

Breastfeeding is thus very essential for optimal growth and wellness of a child and should ideally be commenced within 30minutes of birth for vaginal deliveries and 4hours of birth for caesarian deliveries.<sup>6</sup>

Exclusive breastfeeding is the practice of feeding an infant for the first six months of life on breastmilk only with the strict exclusion of water or any other kind of food.<sup>7</sup> Research has shown that exclusively breastfed infants are far less likely to die from diarrhea and pneumonia than their counterparts who have not been exclusively breastfed.<sup>8</sup>

Globally, there has been a decline in exclusive breastfeeding rate, amongst nursing mothers particularly in developing countries.<sup>9</sup> In Nigeria particularly, many changes in infant feeding practices have occurred over time due to the introduction of alien cultures and the effects of urbanization.<sup>10</sup> This is of grave concern, because of the net advantage of exclusive breastfeeding in reducing childhood morbidity and mortality.

Studies in Enugu has revealed an exclusive breastfeeding rate of 33.4%, while in Ibadan, rates as low as 23.4% have been reported.<sup>11-12</sup>

Breastfeeding is both a natural act and a learned behavior .<sup>10</sup> Factors like socio-economic and health status of mother, mother's occupation as well as cultural beliefs affect breastfeeding.<sup>13-14</sup> Knowledge of mother concerning breastfeeding would influence their practice of exclusive breastfeeding.<sup>10</sup>

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This study therefore seeks to assess maternal knowledge as well as exclusive breastfeeding rate in a secondary health facility in Southern Nigeria.

### METHODOLOGY

This was a cross-sectional study conducted between December 2021 and June 2022 amongst pregnant women attending antenatal clinic in Central Hospital Benin City.

The Hospital is located around Sapele road area of Benin City and primary offers secondary care to residents of Oredo community in Benin City.

Structured research administered questionnaire was used to obtain information from the pregnant women. Information obtained included biodata as well as other relevant information to assess their knowledge and practice of exclusive breastfeeding amongst these mothers attending antenatal clinic. A total of 200 mothers attending antenatal clinic was selected using simple random sampling.

Data collected were entered into a table and analyzed using the statistical package for the social sciences (SPSS version 20). Socio-economic status of the participants was determined using oyedeji's classification.<sup>14</sup> For all statistical tests, p-values<0.005 were considered significant.

### RESULTS

Table 1. Sociodemographic Characteristics Of Respondents

Variable	Frequency (n = 200)	Percent
<b>Age group (years)</b>		
< 30	63	31.5
30 – 39	91	45.5
40 – 49	36	18.0
50 and above	10	5.0
<b>Mean ± SD</b>	<b>34.0 ± 7.8 years</b>	
<b>Level of education</b>		
Primary	16	8.0
Secondary	72	36.0
Tertiary	112	56.0
<b>Occupational Skill Level</b>		
Skill Level 0	21	10.5
Skill Level 1	15	7.5
Skill Level 2	116	58.0
Skill Level 3	37	18.5
Skill Level 4	4	11.5
<b>Number of children</b>		
< 3	106	53.0
3 – 5	86	43.0
> 5	8	4.0

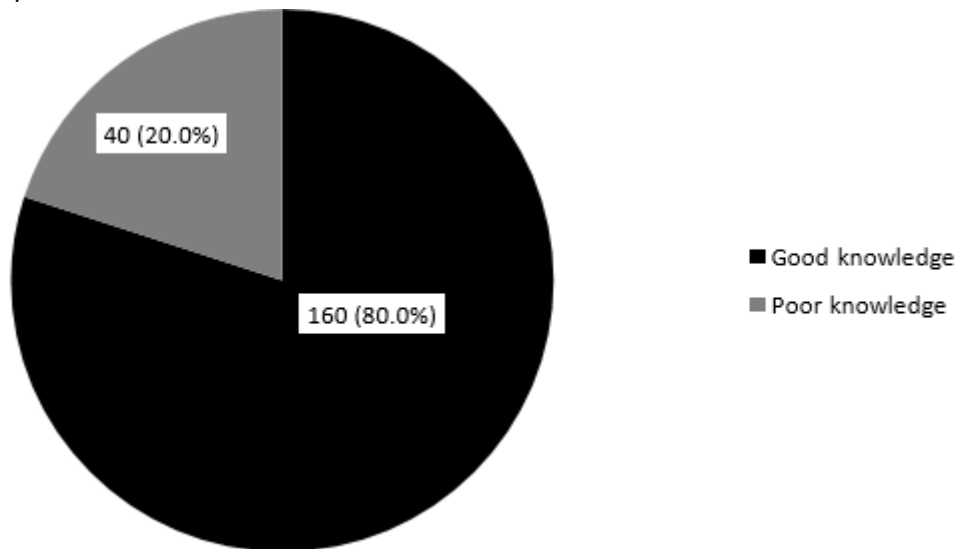
Respondents within age group 30 – 39 years accounted for nearly half (91 ;45.5%) of the participants. The mean age was 34.0 ± 7.8 years. More than half (112 ;56.0% and 116 ;58.0%) of the respondents had tertiary level of education and occupation within skill level 2 respectively. Likewise, 106 (53.0%) of respondents had less than 3 children, while 86 (43.0%) had between 3 – 5 children.

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**Table 2. Knowledge Of Exclusive Breastfeeding Among Respondents**

Variable	Frequency (n = 200)	Percent
<b>Awareness</b>		
Yes	179	89.5
No	21	10.5
<b>Definition of EBF (n = 179)</b>		
Correct	160	89.4
Wrong	19	10.6
<b>Overall knowledge</b>		
Good knowledge	160	80.0
Poor knowledge	40	20.0

Majority ( 179 ;89.5%) of respondents were aware of Exclusive Breastfeeding out of which 160 (89.4%) knew the correct definition of exclusive breastfeeding. Overall, good and poor knowledge of exclusive breastfeeding among respondents was 160 (80.0%) and 40 (20.0%) respectively.



**Figure 1: Overall Knowledge Of Exclusive Breastfeeding Among Respondents.**

Majority ( 160 ;80.0%) of respondents had good knowledge of exclusive breastfeeding.

**Table 3: Association Between Knowledge Of Exclusive Breastfeeding And Socio-Demographic Charcteristics Of Respondents**

Variable	Overall knowledge		Test statistics	p-value
	Good knowledge (n = 160) Frequency (%)	Poor knowledge (n = 40) Frequency (%)		
<b>Age group (years)</b>				
< 30	48 (30.0)	15 (37.5)	$\chi^2 = 0.911$	0.823
30 – 39	75 (46.9)	16 (40.0)		
40 – 49	29 (18.1)	7 (17.5)		
50 and above	9 (5.0)	2 (5.0)		
<b>Level of education</b>				
Primary	10 (6.3)	6 (15.0)	$\chi^2 = 16.735$	< 0.001
Secondary	49 (30.6)	23 (57.5)		
Tertiary	101 (63.1)	11 (27.5)		

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### Occupational Skill Level

Skill Level 0	15 (9.3)	6 (15.0)		
Skill Level 1	11 (6.9)	4 (10.0)		
Skill Level 2	91 (56.9)	25 (62.5)		
Skill Level 3	32 (20.0)	5 (12.5)		
Skill Level 4	11 (6.9)	0 (0.0)	Fischer's Exact	= 0.244
			5.278	

### Number of children

< 3	91 (56.9)	15 (37.5)		
3 – 5	64 (40.0)	22 (55.0)		
> 5	5 (3.1)	3 (7.5)	$\chi^2 = 5.472$	0.065

The highest proportion (75 ;46.9%) and 16 (40.0%) of respondents with good and poor knowledge respectively were within age group 30 – 39 years ( $p = 0.823$ ). Similarly, those with occupation in skill level 2 had the greatest proportions ( 91 ;56.9%) and 25 (62.5%) of good and poor knowledge respectively ( $p = 0.244$ ).

There was a decline in the proportion of respondents who had good knowledge of exclusive breastfeeding with increasing number of children with those who had less than 3 children accounting for the greatest proportion (91 ;56.9%) of respondents with good knowledge ( $p = 0.065$ )

The proportion of respondents with good knowledge increased with increasing level of education as respondents who had primary and tertiary levels of education accounted for the lowest (10 ;6.3%) and highest (101 ;63.1%) proportions of good and poor knowledge respectively. This association between knowledge of exclusive breastfeeding and level of education was statistically significant ( $p < 0.001$ )

**Table 4: Logistic Regression Model For The Determinants Of Knowledge Of Exclusive Breastfeeding**

Predictors	B (regression co-efficient)	Odds ratio	95% CI for OR		p-value
			Lower	Upper	
<b>Age</b>	-0.021	0.980	0.927	1.035	0.466
<b>Level of education</b>					
Tertiary	1.462	4.314	1.226	15.180	<b>0.023</b>
Secondary	0.099	1.104	0.349	3.487	0.867
Primary*	1				
<b>Occupational skill level</b>	0.336	1.400	0.914	2.145	0.867
<b>Number of children</b>	-0.042	0.959	0.712	1.291	0.078

### \*Reference category, $R^2 = 9.4\% - 14.9\%$ , CI= Confidence Interval

The variable in the model accounted for between 9.4% – 14.9% of the variation observed in the outcome variable (Good knowledge). With increasing age, the likelihood of having good knowledge decreased by 0.021. This was more likely by an odds ratio of 0.980 when compared with respondents with poor knowledge ( $p = 0.466$ ). Similarly, with increasing number of children, the likelihood of having good knowledge decreased by 0.042. This was also not statistically significant ( $p = 0.078$ ).

Conversely, the likelihood of having good knowledge was found to increase significantly with increasing level of education as those with tertiary level of education were 4.314 times more likely to have good knowledge compared to those with primary level of education ( $p = 0.023$  CI = 1.226 – 15.180).

Respondents with higher occupational skill levels were 1.400 times more likely to have good knowledge of exclusive breastfeeding. This was however not statistically significant ( $p = 0.086$ ).

## DISCUSSION

This research study surveyed a total of 200 pregnant mothers attending antenatal clinic in Edo state, Nigeria. The study assessed the knowledge and practices of mothers. About half (45.5%) of the respondents were of the age group 30-39 with a mean age and

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SD of 34=7.8 years. This is far less than findings from a study done in Osun, Nigeria,<sup>10</sup> where 90.25% of the respondents were within the age range of 20 and 39 years with a mean age of 26 years. This could be as a result of the fact that this study was done in an urban settlement compared to the Osun study that was done in the local government areas. It also shows that most of the mothers were within the reproductive age of 15- 49 years and the chances of under-five morbidities due to maternal age is reduced

This study recorded that majority of the mothers were aware of EBF(89.5%) which is in tandem with findings from a study done in Ethiopia where it was reported that 83.4% of mothers were knowledgeable about the recommended duration of EBF but less than the findings that was reported in Lagos Nigeria where all the respondent(100%) were aware of EBF.<sup>15,16</sup> These findings contrast with that found in a study carried out in Nigeria where 64.6% of respondents had knowledge that EBF should continue until 6 months. It is expected that a higher percentage of the respondents should have a much higher percentage of knowledge with respect to the correct period for EBF as demonstrated by this study based on the level of education recorded in this study. The difference in level of knowledge in both studies could be due to rigorous health education during antenatal visitation, literacy levels of the respondent, cultural influence and roles husbands play in child upbringing, which helps to continuously emphasize the need for and importance of EBF.

Majority of the mother 89.4% correctly defined what EBF with overall knowledge score of 80% found in the amongst 30 -39 years age group. This is however lower than the 94 % of respondents who had good knowledge of EBF that was reported among female bank workers in Lagos Nigeria in 2018<sup>10</sup>. Although they recorded a high level of knowledge in this study it is however not known if the commenced it within the first 30 mins of birth of the child as stipulated by WHO recommended guideline of introduction of breastfeeding within the first few hours of life is very crucial to the development and growth of the children.<sup>17</sup> The high level of knowledge of EBF could be as a result of other factors such as sociocultural factors, educational status and geographical location where the research was carried out. The slight difference in the level of knowledge could be as a result of the social class amongst the respondents in the Lagos study.<sup>16</sup>

More than half of the mothers practiced EBF 69% in this study which is more than findings recorded in some studies carried out in Ghana and Sokoto state, Nigeria which has 47%<sup>18</sup>, 27.7%<sup>19</sup> and 22.9%<sup>20</sup> respectively but less than the 75.6% of mothers reported to have practiced EBF in the study done in Lagos, Nigeria.<sup>10</sup> It is of note that these findings are far below the WHO recommendation of 90%.<sup>21</sup> These shows a huge gap between the desired and the actual practice of EBF in the study area. The low practices of EBF and high level of knowledge in this study area could be due to reasons that most mothers did not get information regarding EBF from their health providers during health education session in the hospitals, hence, majority of the mothers had knowledge on EBF but did not practice it because most mothers are working class and educated mothers as recorded by the high tertiary level of education in this study and might not be able to create time for breastfeeding at work if they don't have a creche close by and not totally compliant with EBF. It might also be that do not want to spoil their shape by breastfeeding and prefer the stress-free formula feeds. This indicates that healthcare personnel who care for mothers should increase their efforts to promote EBF and need for public policies which that ensure the living and working conditions of women are compatible with exclusive breastfeeding.

Busy schedule, poor understanding/ignorance and poor lactation were some of the reasons given by majority of respondents who failed to practice EBF in this study, this is however not the case in other similar studies who reported low family support, and living with a partner, having two or more breastfeeding role models, lack of Hospital support for breastfeeding and Maternal age was also a significant factor in reasons cited by women for not breastfeeding.<sup>22</sup> Employed mothers have a lower opportunity to stay at home, compromising exclusive breastfeeding. Mothers also may have to leave their babies to search for a job. It was found that only 43% of employed mothers breastfed their child for six months, whereas the unemployed figure is 56%, which is 13% more than the employed figure. Most organizations in Nigeria either have no breastfeeding supporting policies or designated facilities for nursing mothers to breastfeed their babies while at work.<sup>24</sup> This is in variance with the WHO recommendation and National Policy on infants and young child feeding in Nigeria. Thus, there is a need for improved family and work-based breastfeeding support for nursing mothers to enable them to practice EBF.

## CONCLUSION

This study found that despite there was a considerable variance between the proportion of women who knew about exclusive breastfeeding and those who actually practice it. More needs to be done to bridge this apparent gap between the knowledge and the practice of exclusive breastfeeding amongst antenatal mothers.

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