



Determinants Of Exclusive Breastfeeding Practice Among Educated Mothers Visiting Tertiary Health Institutions In Rivers State

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ABSTRACT

This study investigated the determinants of exclusive breastfeeding practice among educated mothers visiting tertiary health institutions in Rivers State. A descriptive research design was used with a population consisting of nine thousand one hundred and twenty (9120) educated mothers who visited tertiary health institutions in Rivers State during the period of the study. A convenience sampling technique was used to select a sample size of 912 which is ten percent of the total population. Data was collected using a structured questionnaire with a reliability coefficient of 0.6. The data generated was sorted, coded and analyzed using statistical product for service solution (SPSS) version 23.0. Statistical tools such as frequency, percentage, mean, univariate chi-square and linear regression were used. The findings of the study showed that exclusive breast feeding was practiced more by those who had ≥ 4 children ($\bar{X} = 3.18$). Factors such as nature of work ($X^2 = 454.15$; $df = 2$; $p = 0.000$) and cultural belief ($X^2 = 172.45$; $df = 4$; $p = 0.000$) had a significant influence on the practice of exclusive breast feeding. It was concluded that, the determinants of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State was their nature of work and cultural belief. It was recommended that, traditional leaders and other stakeholders should discourage cultural practices or activities that does not promote exclusive breast feeding among women.

Keywords: Determinants, practice, mothers, tertiary health institutions

INTRODUCTION

Breastfeeding is a unique process that enhances child survival and development. It contributes to women's health by reducing fertility and risk of breast and ovarian cancer. It also provides social and economic benefits to the family and the nation at large. Recent research has shown that these benefits are minimal with the practice of exclusive breastfeeding in the first six months of life and thereafter with increased duration of appropriately complemented breastfeeding. Also, the benefits of colostrum to the new born baby cannot be overemphasized. Over the last couple of decades, there has been an increasing interest in the promotion of exclusive breastfeeding as the 'best' feeding method for newborns. This, to a large extent, has been inspired by mounting scientific evidence on the importance of exclusive breastfeeding in reducing infant morbidity and mortality. In resource limited settings where poor and sub-optimal breastfeeding practices frequently result to child malnutrition which is a major cause of more

than half of all child deaths (Sokol, Aguayo & Clark, 2007), exclusive breastfeeding is regarded as imperative for infants' survival. Indeed, of the 6.9 million under five children who were reported dead globally in 2011, an estimated 1 million lives could have been saved by simple and accessible practices such as exclusive breastfeeding (WHO, 2012).

For infants to survive, grow and develop properly they require the right proportion of nutrients. Breast milk is rich in nutrients and anti-bodies and contains the right quantities of fat, sugar, water and protein. These nutrients are major pre-requisites to the health and survival of the baby. When a child is exclusively breast fed, their immune system is strengthened, enabling it to life-threatening illnesses like pneumonia and diarrhoea amongst other infections. In fact, reports indicate that babies who are not breast fed for the first six months of life are 15 times more likely to die from Pneumonia compared to newborns that are breast fed exclusively for six months after birth. The World Health Organization estimates that around 220,000 children could be saved every year with exclusive breastfeeding. It recommends that colostrum, the yellowish sticky breast milk that is produced at the end of pregnancy as the ideal food for newborns; to be given within the first hour of birth, a process referred to as early initiation. Infants breast fed within the first hour of birth are three times more likely to survive than those who have their first breast milk after a day. Exclusive breastfeeding should be given from birth up to 6 months and continued breastfeeding is recommended with appropriate complementary food until the child celebrates his/her second year birth day without water, food or drink. The only exceptions are rehydration salts and syrups that contain medicine.

It was noted that over one million children died annually worldwide due to cases arising from improper infant and early childhood feeding practice, notably diarrhea, malnutrition and respiratory infections. In order to put an end to these problems mentioned above, the baby friendly hospital initiative (BFHI) has promoted exclusive breastfeeding practice support by adequate government legislation in Nigeria, through decree 41 of 1990, so as to eradicate childhood illness which occurs as a result of improper infant feeding (Luoff & Klous 2003). Health outcomes differ substantially for mothers and infants who formula feed compared with those who breastfeed, even in developed countries such as the United States. A recent meta-analysis by the Agency for Healthcare Research and Quality reviewed this evidence in detail: For infants, not being breastfed is associated with an increased incidence of infectious morbidity, including otitis media, gastroenteritis, and pneumonia, as well as elevated risks of childhood obesity, type 1 and type 2 diabetes, leukemia, and sudden infant death syndrome (SIDS). Among premature infants, not receiving breast milk is associated with an increased risk of necrotizing enterocolitis (NEC). For mothers, failure to breastfeed is associated with an increased incidence of premenopausal breast cancer, ovarian cancer, retained gestational weight gain, type 2 diabetes, and the metabolic syndrome. The World Health Organization (WHO, 2011) recommends at least 2 years of breastfeeding for all infants. Despite all the methods put in place by the Federal Government there are lots of people who find it difficult to exclusively breastfeed their babies for one reason or the other. Thus, this study was aimed at investigating the determinants exclusive breastfeeding practice among educated mothers visiting tertiary health institutions in Rivers State.

Research Questions

This study provided answers to the following research questions

1. What is the influence of nature of work on the practice of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State?
2. What is the influence of cultural belief on the practice of exclusive breastfeeding among educated mothers visiting tertiary health institutions in Rivers State?
3. What is the influence of parity on the practice of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State?

Hypotheses

The following hypotheses postulated were tested at 0.05 level of significance:

1. Nature of work will have no significant influence on the practice of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State.
2. Cultural belief will have no significant influence on the practice of exclusive breastfeeding

- among educated mothers visiting tertiary health institutions in Rivers State.
3. There is no significant relationship between parity and the practice of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State.

METHODOLOGY

The research design used in this study is a descriptive study design with an estimated population of nine thousand, one hundred and twenty (9120) attendees in nine tertiary health institution in Rivers State. Ten percent (10%) of the population was used as the sample of the study using convenience sampling technique. The instrument for data collection was a structured questionnaire titled: Determinants of Practice of Exclusive Breastfeeding Among Educated Mothers visiting Tertiary Health Institutions in Rivers State (DPEBAEMVTHI) which was developed by the researcher. The first part of the questionnaire is designed to reflect the socio-demographic characteristics of the participants while the B part deals with the variables of the study. To ensure the face, and content validity of the instrument, the items of the questionnaire were corrected and well scrutinized by the project supervisor and three specialists in a related field of study. The test-retest method was adopted to ensure the reliability of the instrument which involved repeated administration of the instruments (questionnaire) to 20 educated mothers outside the study population with similar characteristics on two occasions. The time interval was two weeks. The score resulting from the two administration of the test were correlated to determine the reliability coefficient and stability of the instrument. The reliability coefficient of 0.6 was established. The data generated was sorted, coded and analyzed using statistical package for social sciences (SPSS) version 23.0. Statistical tools such as frequency, percentage, mean, chi-square and linear regression were used.

RESULTS

The results of the study are presented below in Tables 1 - 6

Table 1: Influence of nature of work on the practice of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State

SN	Items	Yes F(%)	No F(%)	Decision
1	The nature of mother's work affect breastfeeding	780(86.0)	127(14.0)	High
2	Length of working hours of mother affects the length of breastfeeding	752(82.9)	155(17.1)	High
3	Child's feeding pattern reflect child's nutritional status	790(87.1)	117(12.9)	High
	Grand percentage	774(85.3)	133(14.7)	High

Table 1 shows the influence of nature of work on the practice of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State. The result shows that the grand percentage (85.4%) is greater than the average (50.0%) indicating a high influence of nature of work on the practice of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State. Thus, the influence of nature of work on the practice of exclusive breast feeding was high.

Table 2: Influence of cultural belief on the practice of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State

SN	Items	Yes F(%)	No F(%)	Decision
1	Culture supports exclusive breastfeeding	621(68.5)	286(31.5)	High
2	Breastfed baby immediately after birth	680(75.0)	227(25.0)	High
3	Gave first milk (Colostrums) to baby	685(75.5)	222(24.5)	High
4	The first milk (Colostrums) is not a dirty milk	607(66.9)	300(33.1)	High
5	Culture permits giving baby any other thing apart from breast milk before six months of age	651(71.8)	258(28.2)	High
	Grand percentage	649(71.6)	258(28.4)	High

Table 2 shows the influence of cultural belief on the practice of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State. The result shows that the grand percentage = 649(71.6%) is greater than the average = 50.0% which indicates that the influence of cultural belief on the practice of exclusive breast feeding among education mothers visiting tertiary health institutions in Rivers State was high.

Table 3: Parity and Practice of exclusive breast feeding among mothers visiting tertiary health institutions in Rivers State

SN	Items	1 child		2 children		3 children		≥4 children	
1	Breastfed baby	3.68	.54	3.79	.42	3.73	.47	3.65	.65
2	Washes breast before breastfeeding	3.35	.76	3.50	.65	3.52	.64	3.29	.82
3	Feeds baby with express breast milk when not around	3.34	.83	3.36	.79	2.70	.18	2.92	.87
4	Uses any comfortable position to breastfeed	3.53	.63	3.57	.56	3.67	.51	3.58	.60
5	Feeds baby on demand	3.44	.72	3.43	.62	3.30	.59	3.44	.61
6	Feeds baby every three hours	2.75	.92	2.80	.87	2.43	1.03	2.94	.86
7	Alternates the breast at each feeding	3.19	.56	3.31	.65	2.93	1.13	3.39	.71
8	Gives water to baby intermittently	2.33	.94	2.43	1.05	2.67	1.13	2.59	1.10
9	Ensures the child belches after each breastfeeding	3.20	.56	3.27	.69	3.32	.88	3.31	.86
10	Lays baby down immediately after breastfeeding	2.16	.75	2.06	.79	2.61	1.01	2.69	1.08
	Grand mean	3.09	.72	3.15	.71	3.09	.75	3.18	.82

Table 3 shows the practice of exclusive breast feeding based on the parity of mothers visiting tertiary health institutions in Rivers State. The result shows that based on parity, exclusive breast feeding was practiced more by those who had ≥4 children (3.18), followed by those who had two children (3.15), and those who had three and one child (3.09). Thus based on parity, exclusive breast feeding was practiced more by mothers who had more children than those with fewer children.

Table 4: Univariate Chi-square test showing influence of nature of work on the practice of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State

Items	Yes F(%)	No F(%)	Total	df	X ² -value	p-value	Decision
The nature of mother's work affect breastfeeding	780(86.0)	127(14.0)	907(100)	2	454.15	0.000	Rejected
Length of working hours of mother affects the length of breastfeeding	752(82.9)	155(17.1)	907(100)				
Child's feeding pattern reflect child's nutritional status	790(87.1)	117(12.9)	907(100)				

*Significant, p<0.05

Table 4 shows the chi-square test of the influence of nature of work on the practice of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State. The result shows that the nature of work had a significant influence on the practice of exclusive breast feeding among mothers ($X^2 = 454.15$; $df = 2$; $p = 0.000$). Thus, the null hypothesis which states that nature of work will have no significant influence on the practice of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State was rejected.

Table 5: Univariate Chi-square test showing influence of cultural belief on the practice of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State

Items	Yes F(%)	No F(%)	Total	df	X ² -value	p- value	Decision
Culture supports exclusive breastfeeding	621(68.5)	286(31.5)	907(100)	4	172.45	0.000	Rejected
Breastfed baby immediately after birth	680(75.0)	227(25.0)	907(100)				
Gave first milk (Colostrums) to baby	685(75.5)	222(24.5)	907(100)				
The first milk (Colostrums) is not a dirty milk	607(66.9)	300(33.1)	907(100)				
Culture permits giving baby any other thing apart from breast milk before six months of age	651(71.8)	258(28.2)	907(100)				

*Significant, $p < 0.05$

Table 5 shows the chi-square test of the influence of cultural belief on the practice of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State. The result shows that cultural belief had a significant influence on the practice of exclusive breast feeding among mothers ($X^2 = 172.45$; $df = 4$; $p = 0.000$). Thus, the null hypothesis which states that cultural belief will have no significant influence on the practice of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State was rejected.

Table 6: Regression analysis showing relationship between parity and the practice of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State

Model	R	R square	Adjusted R square	B	P	Decision
	0.022	0.000	-.001	3.106	0.508	Accepted

*Not Significant, $P > 0.05$.

Table 6 shows the regression analysis of relationship between parity and the practice of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State. The result shows that there was no significant relationship between parity and practice of exclusive breast feeding ($r = 0.022$, $p = 0.508$). Thus, the null hypothesis which states that there is no significant relationship between parity and the practice of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State was accepted.

DISCUSSION OF FINDINGS

The findings of the study are discussed below:

The result shows that the nature of work had a significant influence on the practice of exclusive breast feeding among mothers ($X^2 = 454.15$; $df = 2$; $p = 0.000$). The finding of this study corroborates that of Senerath, Dibley and Agho (2010) which showed that maternal employment has an influence on the practice of exclusive breast feeding. The finding of this study is also in keeping with that of Violet (2008) which showed that, employment of mother was found to be associated with exclusive breastfeeding. The finding of this study is in keeping with that of Chan and Asirvatham, (2001) which showed that there were more nonworking mothers breastfeeding exclusively at 4 months than working mothers (60% versus 26%) $P < 0.01$). The finding of this study also corroborates that of Spinelli, (2003) which showed that women with office workers were more likely to attend classes and women who attended antenatal classes were about half as likely to bottle feed.

The result shows that based on parity, exclusive breast feeding was practiced more by those who had ≥ 4 children (3.18), followed by those who had two children (3.15), and those who had three and one child (3.09). The result shows that there was no significant relationship between parity and practice of exclusive breast feeding ($r = 0.022$, $p = 0.508$). The finding of this study is in line with that of Agampodi, (2009) which showed that parity was not significantly associated with exclusive breast feeding. The finding of this study is also in consonance with that of Spinelli, (2003) which showed that women who attended antenatal classes without previous children were more likely to attend classes and were about half as likely to bottle feed. The result also shows that based on education, exclusive breast feeding was practiced more by those who had tertiary education (3.14), followed by those who had secondary education (3.12), and those who had primary education (3.08). The result shows that the grand percentage = 649(71.6%) is greater than the average = 50.0% which indicates that the influence of cultural belief on the practice of exclusive breast feeding among education mothers visiting tertiary health institutions in Rivers State was high. The result shows that cultural belief had a significant influence on the practice of exclusive breast feeding among mothers ($X^2 = 172.45$; $df = 4$; $p = 0.000$). The findings of this study is in line with that of Aborigo et al., (2012) in rural northern Ghana which showed that cultural practice such as, new-borns to primiparous mothers are regularly given out to wet nurses or 'fed on herbal teas' whilst the mother is taken through a cultural cleansing for a period of 3 or 4 days depending on the sex of the child.

CONCLUSION

Based on the findings of the study, it was concluded that, the determinants of exclusive breast feeding among educated mothers visiting tertiary health institutions in Rivers State was the nature of work and their cultural belief.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations were made:

1. Traditional leaders and other stakeholders should discourage cultural practices or activities that does not promote exclusive breast feeding among women.
2. The cultural belief and nature of work of mothers should be taken into consideration by Nutritionists when designing nutritional programmes such as baby friendly initiative for women.
3. The National Assembly should enact laws that could promote breast feeding to boost the nutrition indices among infants by ensuring strong regulations on marketing of breast milk substitutes or baby formulas.

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