

MATERNAL EXCLUSIVE BREAST-FEEDING PRACTICE IN CALABAR, NIGERIA : SOME RELATED SOCIAL CHARACTERISTICS

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ABSTRACT

Objective: To determine the social characteristic of mother who practice exclusive breast-feeding in Calabar.

Subject and Methods: A prospective questionnaire based cross sectional survey of breast feeding practices among mothers of children aged 0-24 months was carried out in Calabar in April 1998. Using WHO indicators for assessing breast feeding practices, the exclusive breast feeding rate was determined in mothers of children aged 0-6months. This study documents the social characteristics of those mothers who practiced exclusive breast feeding (EBF).

Results: Of 1145 mothers in the study ,446 were mothers of children aged 0-6months. Of this, 102(22.9%) practiced EBF. The material characteristics associated with a high EBF rate were being married ($p<0.01$), attainment of higher education ($p<0.05\%$), the use of health facility based ante natal care ($p=0.0001$) and delivery services ($p<0.0000001$). Others were paid employment with maternity leave ($p<0.001$)and being of Cross River State extraction ($p<0.01$). Parity did not appear to influence EBF ($p>0.2$).

Conclusion: This study has shown that being married, attaining higher education, being on paid maternity leave, use of government health facility based ante natal and delivery services as well as being of Cross River State extraction were maternal characteristics associated with EBF. There is need to intensify health education on the benefits and management of breast feeding in order to improve the present EBF rate of 22.9%.

KEY WORDS: Maternal Exclusive breast feeding, Social characteristics.

INTRODUCTION

Breast feeding has been recognized as a means of ensuring optimal nutrition for the infant.^{1,2} Furthermore, it is also known to protect against infections thus reducing morbidity and mortality in young children.^{3,4} These gains of breast feeding are maximized with exclusive breast feeding during the first six months of life and prolonged total duration of breast feeding.^{5,6} It is in recognition of this that WHO/UNICEF recommended exclusive breast feeding during the first six months of life, to be followed by appropriate and adequate complementary foods and continued breast feeding up to the age of two years and beyond⁷

Globally about 34% of under 4 -month old infants are exclusively breast fed.⁸ In Nigeria, the 1990 National Demographic Health Survey (NDHS) put the exclusive breast feeding (EBF) rate in the first six months of life at 0.1%. In order to reverse the trend away artificial milk, WHO/UNICEF launched the Baby Friendly Hospital Initiative (BFHI) in 1991, with Nigeria as one of the 12lead countries. Since then breast feeding promotion through education and campaigns have intensified in health facilities, schools and the news media. This study was therefore aimed at identifying the characteristics of mothers who have been receptive to breast feeding education and have in turn practiced exclusive breast feeding with a view to properly focusing future breast feeding promotion.

MATERIALS AND METHODS

This was a prospective cross sectional survey of breast feeding practices in Calabar, the capital city of Cross River State with a population of 380,862 (1991 census) done in April 1998. A total of 1145 months of children aged 0-24 months were studied. The sample size was calculate using the 1990 NDHS exclusive breast feeding rate.¹⁰ A systematic sampling of the 745 census enumeration areas (EAs)used for the 1991 census in Calabar was done. A pilot survey of six EAs comprising of three high density and three low-density areas was conducted. This revealed that there was an average if 12 months of children aged 0-24months in each EA. Based on this, the sample size was to be obtained from 100 EAs. In order to systematically sample 100 EAs out of 745, the sampling interval of 7 was used with a random start from 15. In each of the 100 EAs, all eligible mothers who gave consent were interviewed using a structured questionnaire to obtain information of events in the preceding 24 hours. Information obtained from each mother included maternal age, ethnic group, parity, educational status and type of employment. Others were use of antenatal services, place of delivery of index child age of child and breast feeding practices. The interview was conducted by one of the researchers (ENE) and five community health workers who had been trained prior to onset of study and who showed understanding.

DEFINITIONS

Exclusive breast feeding: the infant has received only

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breast milk, and no other liquids or solids with the exception of drops or syrups consisting of vitamins, mineral supplements or medicines¹¹.

Exclusive breast feeding rate: Proportion of infants less than six months of age who are exclusively breast fed. Inclusion Criteria: Mother of children born between March 31, 1996 and April 1, 1998) who consented to be interviewed. Mothers who had more than one child aged 0-24 months were interviewed separately for each child. Exclusion Criteria: Mothers of children born after April 1, 1998 and those who did not consent to be interviewed. Data was analyzed using Epi info version 5. Student "t" test and chi-square was used for rates and proportion respectively. The level of statistical significance was $p < 0.05$.

RESULTS

Among the 1145 mothers interviewed, 446 (39%) were mothers of children less than six months of age. Of these 446 mothers, 102 (22.9%) were breast feeding exclusively giving an exclusive breast feeding (EBF) rate of 22.9%. The age range of the mothers was 14-49 years with a mean of 26.6 years. The majority of the mothers were less than 30 years old. Maternal characteristics and the exclusive breast feeding rates among the 446 mothers of under 6-months old children are shown in table 1 and 2. There were 392 (88%) married and 54 (12%) single mothers. The EBF rate of the former was 24.7% in the later (Table 1). This difference was statistically significant ($p < 0.01$).

There were 176 (39.5%) and 194 (43.5%) mothers of Cross River State and Akwa Ibom state tribes respectively, while other tribes constituted 76 (17%). The EBF rate was significantly higher among mothers from Cross River tribes ($p < 0.01$). Although 255 (57.2%) of these mothers were self-employed, the highest EBF rate (37.5%) was seen in mothers with paid employment and this was significant when compared with other forms of employment of the mothers ($p < 0.001$). More mothers who received antenatal care breast fed exclusively than the mothers who did not (Table 2).

Table 1 - Maternal Characteristics and Exclusive Breast Feeding Rates among 446 Mothers

Factor	Number breast feeding Exclusively (%)	Number not breast feeding Exclusively (%)	Total	P value
Marital status				
Married	97(24.7)	295(75.3)	392(100)	
Single	4(7.4)	50(92.6)	54(100)	<0.01
Ethnic group				
Cross River tribes	51(29)	125(71)	176(100)	
Akwa Ibom tribes	31(16)	163(84)	194(100)	
Others	20(26.3)	56(73.7)	76(100)	<0.01
Parity				
1	29(19.5)	120(80.5)	149(100)	
2-4	60(24.7)	183(75.3)	243(100)	
>5	9(17)	45(83)	54(100)	>0.2
Employment				
Self-employment	52(20.4)	203(79.6)	255(100)	
Paid-employment	36(37.5)	60(62.5)	96(100)	
Unemployment	14(14.7)	81(85.3)	95(100)	<0.001

Table 2 - Maternal Characteristics and Exclusive Breast Feeding Rates among 446 Mothers (contd.)

Factors	Number breast feeding Exclusively (%)	Number not breast feeding Exclusively (%)	Total	P value
Ante-natal care in health facility				
yes	100(26)	284(74)	384(100)	
No	2(3.2)	60(96.8)	62(100)	0.001
Delivery in health facility				
Yes	86(33.6)	170	256(100)	
No	16(8.4)	174	190(100)	<0.0000001
Educational status				
No formal	9(25.7)	26(74.3)	35(100)	
Primary	30(20)	120(20)	150(100)	
Secondary	50(21.6)	181(78.4)	231(100)	
Tertiary	13(43.3)	17(56.7)	30(100)	<0.05

While the EBF rate for those who did not receive antenatal care was 3.2% that of those who received antenatal care was 26% ($p = 0.0001$). Also, out of 256 mothers who delivered in health facilities, 86 (33.6%) breast fed exclusively compared to 16 (8.4%) out of the 190 who delivered outside health facilities ($p < 0.0000001$). Mother with tertiary education had the highest EBF rate (43.3%), followed by those with no formal education (25.7%). For those who attained secondary and primary education, their EBF rates were 21.6% and 20% respectively. The EBF rate for mothers with tertiary education (Table 11) was significantly higher than those of the mothers ($p < 0.055$).

DISCUSSION

This study has identified some maternal characteristics that influence the practices of EBF, among which is marital status. We found that the EBF rate for married mothers was significantly higher than that for their single counterparts ($p < 0.01$). This difference may be explained by the fact that married mothers are usually better prepared for child rearing because of the care and support they receive from their families. As a result they are more receptive to practices that ensure the well being of their children such as EBF. On the other hand single mothers often lack the care and support of their families, as such their children constitute a burden and in such a situation EBF does not thrive. Therefore while all mothers need breast feeding education and support, our findings suggest that greater attention should be paid to the single mothers in order to achieve successful breast feeding.

The place of origin of mothers was another factor that influenced EBF in this study. It was striking to observe that mothers of Cross River state tribes had a significantly higher EBF rate than their Akwa Ibom state counterparts ($p < 0.01$). The reason for this is unclear as both groups are culturally related, live together and are exposed to similar influences in this urban environment. This observation calls for further studies into child rearing practices of these two main groups in Calabar municipality. It was surprising to observe that the EBF rate among the unemployed and self-employed mothers was lower than that of those in paid employment. This is contrary to expectation, since the unemployed/self-employed are usually not separated from their children unlike those in paid employment who usually separated during working

hours. However, a close examination of the breast feeding pattern of the mothers in paid employment showed that a majority of those who breast fed exclusively were on maternity leave. This observation indicates the value of the 12 Week maternity leave which has been in existence since 1919 when the International Labour Organization (ILO) adopted its first maternity protection convention. Recently, in recognition of the value of women's productive and reproductive work, a new ILO convention (ILO Convention 183) of 2000 had increased the duration of maternity leave to week. This extended duration of the maternity leave is expected to be followed by improved infant care and a higher EBF rate.

This present study has shown that maternity status influenced EBF. That the highest EBF rate was found in mothers with the highest leave of education (tertiary) suggests that this group of mothers were the most receptive to breast feeding education, they are more likely to have a better understanding of the benefits of breast feeding, hence their choice to practice EBF. It is however disturbing that the EBF rate for mothers with secondary school education was not higher when compared to those with lower education. This observation calls for intensive health and breast feeding education. The role of maternity services is the promotion, protection and support of breast feeding is well recognized. This is especially so when the staff have been trained in breast feeding management. In line with expectation, this study had shown that the use of health facility based antenatal and delivery services were association with significantly higher EBF rate than when these services were not used. There is therefore the need to intensify the training and retraining of health workers in breast feeding as well as the adoption of the BFHI by maternity services. Furthermore these maternity services should be accessible and the cost of their services made affordable so as to encourage large patronage. This prospective questionnaire based has the limitation of not being truly representative of the breast feeding practices in be community. This is because since the introduction of the BFHI in 1991, there has been a lot of breast feeding promotion in the mass media, health facilities, schools, religious organizations and women's groups. As a result the knowledge of the recommended breast feeding practices such as EBF and its duration may be widespread. To this extent, the responses of the mothers may be based on their knowledge of the recommended practices rather than their actual breast feeding practices. This notwithstanding, the present study has shown as EBF of 22.9% among mothers of under 6-month old children in Calabar during 1998. The figure is a market improvement when compare to 0.1% obtained during the NDHS of 1990 in Nigeria. This improvement may be attributed to BFHI.

In conclusion, the maternal characteristics that had

positive influence on EBF were marriage and being of Cross River extraction. Other characteristics were paid employment with maternity leave for mothers, use of health facility based antenatal and delivery service as well as the attainment of higher education. Therefore, in order to improve on the present EBF rate (22.9%) it is suggested that health education with special emphasis and management of breast feeding to mothers, their families and the public should be intensified.

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