

Breastfeeding Practices and Attitudes of Postnatal Mothers in a South-West Nigerian Community

By

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ABSTRACT

Breastfeeding has been reported to be the simplest, healthiest and least expensive feeding method in achieving optimal health and growth for infants. Despite strong evidence in support of Exclusive Breast Feeding (EBF) for the first six months of life, its prevalence has remained low worldwide. The present study, a cross-sectional descriptive study involving women of child bearing age, therefore aims at investigating the underlying attitudes affecting EBF practices in Ede, Osun state, Nigeria. A total of 163 women were surveyed with regards to their knowledge and practice of exclusive breastfeeding and their attitude to infant feeding. Data were collected using a set of structured interviewer administered questionnaires. Over half of the respondents (61.3%) had adequate knowledge of exclusive breastfeeding with 75.5% of the mothers breastfeeding for 12 months or more. However, only 30.7% of the mothers practised exclusive breastfeeding. Although breastfeeding was universal in this study area, the EBF practice was low. There is a need to deploy interventions aimed at early breastfeeding initiation and improving the knowledge and practice of EBF towards achieving optimal health status in low resource communities.

Keywords: Mothers, infant nutrition, breastfeeding, Iowa Infant Feeding Attitude Scale, practice,

INTRODUCTION

Breastfeeding, the feeding of infants and young children with milk from a woman's breast has been described as vital to infant and maternal health (UN, 2020; Victora, Bahl, Barros, França, Horton, Krusevec, et al., 2016). Global infant feeding guidelines (WHO, 2019) recommend that infants be exclusively breastfed, which is, feeding with human milk without the addition of any other liquids or solids, for the first six months of life and thereafter. It also recommends that children should receive nutritionally adequate complementary foods, while continuing to breastfeed for up to two years. The immense health value of adhering to the prescribed infant feeding guidelines has long been recognized (Martin, Ling and Blackburn, 2016; Andreas, Kampmann, and Mehring Le-Doare, 2015). The immunological property of breast milk has been demonstrated to decrease the risk of diarrhoea and gastrointestinal illnesses, allergies, acute respiratory infections, otitis media, bacterial meningitis, atopic disease, childhood asthma, and

childhood leukemia (WHO, 2019; Quigley, Kelly, and Sacker, 2007; Kramer and Kakuma, 2002). It also offers increased protection from infectious disease and may decrease the risk for long-term conditions (Cacho and Lawrence, 2017; O'Sullivan, Farver, and Smilowitz, 2015). Furthermore, there are strong indications that the benefits of appropriate breastfeeding may not only be experienced in the short term but may extend throughout a lifespan (Louis-Jacques and Alison Stuebe, 2018; Fawzi, Herrera, Nestel, Amin, and Mohamed, 1998). Despite the body of literature in supporting these benefits, EBF rates still remain low and infant feeding practices remain sub optimal in Nigeria (Atimati and Adam, 2020; Akadri, and Odelola, 2020; Peterside, Kunle-Olowu and Duru, 2013; Agunbiade and Ogunleye, 2012; Uchendu, Ikefuna and Emodi, 2009; Otaigbe, Alikor and Nkanginieme, 2005).

Globally, half of all child deaths due to pneumonia and diarrhoea occurred in India, Nigeria, Democratic Republic of Congo and Ethiopia with an estimated 5.9 million under 5-year old children dying from preventable diseases (You, Hug, Ejdemyr, Idele, Hogan, Mathers, and Alkema, 2015; Wang, Liddell, Coates, Mooney, Levitz, Schumacher and Moore, 2014). An infant not exclusively breastfed for 6 months is 15 times more likely to die from pneumonia and diarrhoea than exclusively breastfed children (Ezeh, Ogbo, Stevens, Tannous, Uchechukwu, Ghimire, and Child Health Research Collaboration, 2019; Santos, Santos, Santos, Leite and Mello, 2015; Gertosio, Meazza, Pagani and Bozzola, 2015). Optimal breastfeeding practices have been identified as the most cost-effective child survival strategy in low resource settings and have the potential to reduce under-five mortality by 13% in developing countries (Atimatin and Adam, 2020; Kramer, Chalmers, Hodnett, Sevkovskaya, Dzikovich, Shapiro, et al., 2001). Infant feeding practices, including initiation, duration and exclusivity have been demonstrated to be influenced by multiple interwoven factors (Louis-Jacques and Alison Stuebe, 2018). In Nigeria, these factors vary widely across different settings and even in similar demographic conditions (Ihudiebube-Splendor, Okafor, Anarado, Jisieike-Onuigbo, Chinweuba, Nwaneri, and Chikeme, 2019; Joseph and Earland, 2019; Agho, Dibley, Odiase and Ogbonmwan, 2011; Ogbonna and Daboer, 2007). For instance, some studies have demonstrated that education and parity was significantly associated with EBF (Atimati and Adam, 2020; Ihudiebube-Splendor, et al., 2019), while some others have shown that EBF practice increased with increasing age of women (Ngwu, 2015; Agho et al, 2011). In addition, normative expectations and a network of social support have been shown to influence the forms and quality of infant feeding practices (Qureshi, Oche, Sadiq and Kabiru, 2011).

Infant feeding practices in Nigeria have been widely studied (Ihudiebube-Splendor et al., 2019; Qureshi et al, 2011). Nigerian mothers feed their infants by breastfeeding, bottle feeding and mixed feeding, that is, breast milk supplemented with other age appropriate foods (Udoh and Amodu, 2016). A critical look at available literature reveals that there is considerable evidence on varied attitudes to feeding colostrum, the first form of milk produced after childbirth, to infants (Leshi, Samuel and Ajakaiye, 2016; Akinremi and Samuel, 2015). While the benefits of this practice have been established in the medical literature, negative attitudes to colostrum may be an indicator of low levels of exclusive breastfeeding practice.

Infant feeding attitudes describes a mother's feelings, thoughts, and behaviors towards the method she adopts in feeding her infant (de la Mora, Russell, Dungy, Losch and Dusdieker, 1999). A mother's attitudes towards breastfeeding as the choice of infant feeding method have

demonstrated to influence the likelihood of breastfeeding initiation and intention to continue to breastfeed (Bektas and Arkan, 2021; Yu, Wei, Lukoyanova, Borovik and Fewtrell, 2020; Omoronyia, Ayuk, Bisong and Nwafor, 2020). These attitudes are shaped by factors such as personal breastfeeding experience, support from social networks, particularly her mother and partner (Khasawneh, Kheirallah, Mazin and Abdunabi, 2020). In addition, exposure to positive role models and societal values which promote breastfeeding as normal and desirable contribute to the formation of positive breastfeeding attitudes (Bektas and Arkan, 2021). The infant feeding attitudes of significant others such as a woman's partner and mother have also been cited as influential on breastfeeding practice (Bektas and Arkan, 2021; Khasawneh et al., 2020). In traditional societies, role modeling plays a vital role in breastfeeding choice as younger women learn about infant feeding from their own mothers and other female relatives (Bektas and Arkan, 2021; Demirtas, 2012; Meedya, Fahy and Kable, 2010). In urban communities where women may be geographically isolated from their own mothers or other childbearing peers, mothers and their partners have been shown to hold similar infant feeding attitudes (Chang, Li, Li, Beake, Lok, and Bick, 2021). This implies that a study of infant feeding attitudes can aid an understanding of the psychological processes that individuals hold in their choice of infant feeding method. The current study therefore investigated the infant feeding attitudes and practices of a cohort of postpartum mothers in a rural community in South-Western Nigeria. The study therefore seeks to answer the following questions:

- 1) What is the level of EBF awareness and practice in the current sample?
- 2) Will infant feeding attitudes influence infant feeding practices especially breastfeeding in the current cohort of mothers?
- 3) Will level of education influence infant feeding attitudes in mothers?

METHODS

The study adopted a cross-sectional descriptive survey design. 163 postpartum mothers were recruited from rural public primary health centres in Ede, Osun state, Nigeria. Inclusion criteria for the sample were that participants should be mothers with at least one living child with no known memory impairments. Ethical approval for the study was obtained from the ethics research panel based at the Behavioural Studies department of the Redeemer's University and the Primary Health Care Directors responsible for the primary health centres.

Research Instrument: A structured questionnaire was used in assessing infant feeding attitudes and practices among postnatal mothers. The questionnaire contained two sections;

The first section of the questionnaire was developed by the researcher based on the review of literature on infant feeding practices. The section consisted of 15 questions aimed at surveying the demographic characteristics of respondents.

The second section consisted of the Iowa Infant Feeding Attitudes Scale (IIFAS) (de la Mora et al., 1999) which was used to assess mothers' attitudes toward infant feeding. The scale consists of 17 items with a 5-point Likert scale from strongly agree to strongly disagree. Total IIFAS score range from 17 to 85 with lower scores reflecting more positive attitudes to bottle feeding.

Total scores were grouped into three groups (1) positive to breastfeeding (70–85), (2) neutral (49–69), and positive to formula feeding (17–48). The IIFAS is a valid and reliable measure of breastfeeding knowledge and attitudes in cross-cultural settings (ref).

Mode of Data Analysis: Data were analyzed using statistical software and results were presented in frequencies and percentages. The relationship between IIFAS scores and socio-demographic variables was tested by using correlation, t-tests, or a one-way analysis of variance. The significance level for all statistical analysis was set at 0.05.

RESULTS

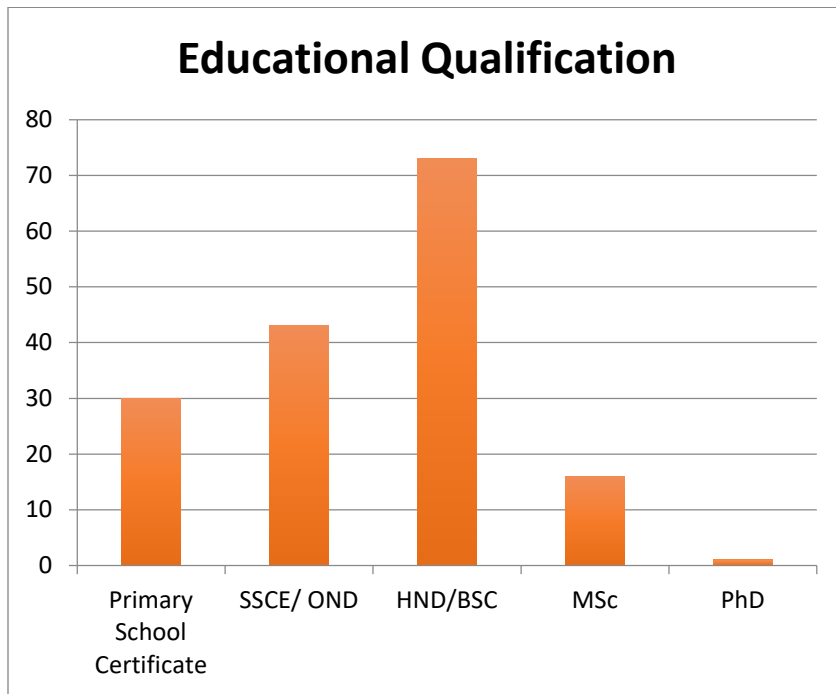
Socio-Demographic Data of Respondents: The sample of the present study comprised of postpartum mothers (N=163) of whom over half (66.3%) belonged to the 31–50 years age group with mean age of the participants as 35.72. A majority (90.2%) of the respondents were married with more than one-third (44%) having attained a university education (Table 1).

Table 1: Socio-demographic characteristics of participants

Variable		Frequency	Percentage
Age category	18-30yrs	31	19.0
	31-50yrs	108	66.3
	51-70yrs	20	12.3
	70yrs and above	4	2.5
	Total	163	100.0
Religion	Christian	140	85.9
	Islam	20	12.3
	Others	3	1.8
	Total	163	100
Marital status	Married	147	90.2
	Single	3	1.8
	separated / divorces	5	3.1
	Others	8	3.9
	Total	161	100
Occupation	Office Workers	56	34.4
	Business	101	62.0
	Artisan	6	3.6
	Total	163	100.0

Further details on educational qualifications of the respondents are presented in Figure 1:

Figure 1:



Educational Qualification of participants

Infant feeding awareness and practices of respondents: Over 61.3% (100) of the respondents were aware of EBF with all of the participants reporting that they had witnessed other mothers' breastfeed. However, only 24.5% (40) had witnessed other mothers breastfeed exclusively with only 30.7% (50) initiating breastfeeding within 1 and 24 hours after birth, whereas more than half of the respondents (60%), breastfed their children for more than 12 months.

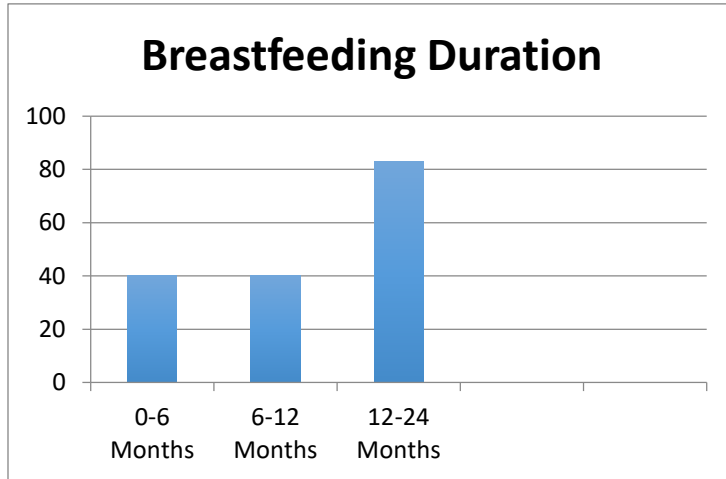
Table 2: Infant feeding knowledge and practices of respondents

Variables	Frequency	Percentage
Awareness of EBF		
Yes	100	61.3
No	63	38.7
Have witnessed other mothers breastfeed		
Yes	163	100

No	0	0
Have witnessed other mothers practice EBF		
Yes	40	24.5
No	123	75.5
Initiation of EBF		
Within 1-24 hours of birth	50	30.7
Never EBF	113	69.3

Further explanations on breastfeeding duration are presented in figure 2:

Figure 2: Breastfeeding Duration



With regards to infant feeding attitudes, mean score on the IIFAS was 71.6. The majority of the participants agreed that breastfeeding increases mother infant bonding (83.6%) and is more convenient than formula feeding (70.8%). The majority of the respondents opined that breast milk is ideal for the babies (90.4%), easily digested (81.4%) and healthy for an infant than formula (82.8%). Of the respondents, 83.4% agreed that mothers who formula-feed miss one of the great joys of motherhood and fathers doesn't feel left out if a mother breastfeeds (87.2%). Nearly three fourths of the participants agreed that the women can breastfeed in public places such as restaurants (75.4%).

Mothers who attained a university degree or its equivalent (68.3, $p < .01$) had higher IIFAS scores than women who had obtained lower education. There was also significant difference with regards to breastfeeding practices ($p < .000$). Mothers who breastfed for 12 months or more (65.4) held more positive attitude to breastfeeding than mothers who breastfed for less than 12 months (60.2).

DISCUSSION OF FINDINGS

In a recent evaluation of the Sustainable Development Goals (SDGs), exclusive breastfeeding (EBF) and continuous breastfeeding till age 2 is considered as one of the most critical interventions in achieving SDG 2,3 and 4 as it improves nutrition, prevents child mortality and decreases the risk of non-communicable diseases, and supports cognitive development and education (UN, 2020).

In this study, only 61% of mothers were aware of EBF as relating to breastfeeding. This figure is higher when compared to results from other similar locations in Nigeria (Akadri and Odelola, 2020; Ihudiebube-Splendor, et al., 2019; Oche, Umar and Ahmed, 2011). In the present study, there is high initiation and sustained breastfeeding as all mothers breastfed their infants at least for 1 month and up to twenty four months. However, only 30.7% of the sampled mothers breastfed exclusively. These findings are comparable with results of previous studies from other locations (Khasawneh and Khasawneh, 2019; Radwan, 2013; Al-Kohji, Said and Selim, 2012). In a review of the breastfeeding literature by Hamze, Mao and Reifsnider (2019) shows that exclusive breastfeeding rates are sub optimal in low resource countries and can vary from 9% to 40%.

According to Infant and Young Child Feeding (Federal Ministry of Health, 2011) guidelines, the Federal Ministry of Health in Nigeria recommends that breastfeeding be initiated immediately after birth, preferably within the first one hour. Though, majority of the mothers delivered normally and in a primary health care centre, only 30.7% of the mothers initiated breastfeeding within an hour after birth. This is higher than the studies conducted from different parts of the world ranging from 6.3% to 31% (Vijayalakshmi, Susheela, and Mythili, 2015; Oche et al., 2011; Adeyinka, Ajibola, Oyesoji and Adedeji, 2008). Data from various studies conducted in Nigeria reveal that EBF initiation rates vary from 16 to 54.5% (Atimati and Adam, 2020; Ihudiebube-Splendor, et al., 2019; Oche et al, 2011). These findings reveal an urgent need to develop strategies to encourage mothers in low resource settings to initiate breastfeeding early.

The IIFAS differentiated between mothers with regards to breastfeeding duration. Mothers who breastfed for 6 months had a higher mean score than mothers who breastfed for less than 12 months. Previous studies also have shown that mothers who do not breastfeed have negative attitudes towards breastfeeding (Omoronyia, Ayuk, Bisong&Nwafor, 2020; Vijayalakshmi, et al., 2015). Consistent with the highly positive attitude to breastfeeding in the sample, most of the mothers agreed strongly to statements supporting the health, emotional and economical benefits of breastfeeding (breastfed babies are healthier than formula fed babies, breastfeeding promotes mother-baby bonding, Breast milk is cheaper than formula).

Maternal education has been described as one of the strongest determinants of the practice of EBF (Agho, Ezeh, Ghimire, Uchechukwu, Stevens, Tannous &GloMACH, 2019; Ihudiebube-Splendor, et al., 2019; Oche et al., 2011; Dubois &Girard, 2003). In line with previous research (Hamze et al., 2019; Iliadou, Lykeridou, Prezerakos, Tzavara & Tziaferi, 2019), more educated mothers scored higher on the IIFAS indicating more positive attitudes toward breastfeeding.

Though, statistically significant difference was not found between attitude scores and employment, mothers who worked outside an office (artisans and businesswomen) had more positive attitudes toward breast feeding. This finding is consistent with previous reports that showed high breastfeeding rates among women who do not hold formal employment and homemakers (Gianni, Bettinelli, Manfra, Sorrentino, Bezze, Plevani et al., 2019; Vijayalakshmi,

et al., 2015). Home makers and women who are not involved in formal employment have more flexible timing and are better able to sustain breastfeeding. In a study of working mothers in Egypt, return to work was cited as the most common reason for stopping breastfeeding (Abou-ElWafa& El-Gilany, 2019).

LIMITATIONS OF THIS STUDY

The present study has certain limitations such as being cross sectional in nature, all the participants were at least one year postpartum and a relatively small sample size may make it difficult to generalize the findings. Future studies should focus on larger sample and qualitative studies such as focus group interviews to identify barriers to early and sustained initiation of EBF among mothers in low resource settings in Nigeria. Despite these limitations, the findings of the present study will prove helpful to health professionals and policy makers in designing breastfeeding initiatives for low resource settings across the country and elsewhere.

CONCLUSION AND RECOMMENDATIONS

Even though breastfeeding was found to be highly acceptable in the study area as evidenced by the fact that all the mothers in the sample had seen another mother breastfeed and had breastfed their own infants, practice of EBF remains abysmally low.

1. There is, therefore, an urgent need to institute intervention measures aimed at increasing EBF rates in the study community.
2. Appropriate sensitization directed at early initiation of breastfeeding, improving acceptance of EBF in infancy and later life to the mother-infant cohort is required.

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