



BREASTFEEDING AS A FORM OF CONTRACEPTIVE AMONG NURSING MOTHERS IN IBADAN, NIGERIA

MONICA EWOMAZINO AKOKUWEBE¹

*Department of Sociology,
University of Ibadan,
Ibadan, Nigeria*

ABSTRACT

Breastfeeding is a major factor in child growth and very effective as a birth-spacing method, yet its use is still low in developing countries. This study examined the impact of socio-demographic factors on the reported low usage of breastfeeding as a child-spacing method. The study utilized the combination of Max Weber's Social Action Theory and Ajzen and Fishbien's Theory of Reasoned Action as its theoretical framework. Three hundred and thirty-eight copies of a structured questionnaire were administered to nursing mothers. Additional data were collected through qualitative method, such as in-depth interview. A total of 71.4% of the nursing mothers who had post-secondary education had a higher knowledge of exclusive breastfeeding (EBF) as a contraceptive, while 68.8% of the women with lower income would likely use EBF as a contraceptive. A total of 45.4% of the nursing mothers were using EBF as contraceptive, while 31.5% were complementing it with other family planning methods. Socio-demographic factors such as age, income, education and ethnic membership affected the use of EBF as a contraceptive. Suggestions for intervention include health education, especially during antenatal/postnatal sessions and aggressive advocacy on the effectiveness of EBF.

Keywords: *Birth-spacing, Breastfeeding, Contraceptive, Nursing mothers*

INTRODUCTION

Globally, studies have consistently established the positive impact of breastfeeding on child survival, birth-spacing, and maternal health (Kramer and Kakuma, 2002; Koosha et al. 2008; James and Lessen, 2009). It is an important public health strategy for reducing infant/child morbidity and mortality. Breastfeeding is associated with a reduced risk of ear infection, stomach and intestinal inflammation, respiratory illness, infant death, dead-tissue intestinal disorder, obesity and hypertension (James and Lessen, 2009; Al-Binalis, 2012). Studies indicate that infants should be exclusively breastfed for the first six months of life, with breastfeeding continuing for up to two years of age or longer (WHO, 2002; 2003; Kramer and Kakuma, 2002).

However, its low usage as a child-spacing method has not been given adequate attention. A good example of this is the Nigerian context where its usage as a child-spacing method was 5% compared to other commonly used methods with 37% (NDHS, 2008). World Health Organization (WHO) estimated that 35% of children between birth and their 5th month are breastfed exclusively worldwide (WHO, 2010). According the WHO Global data on infant and young child feeding in Nigeria, 22.3% of children were exclusively breastfed for less than 4 months, while 17.2% of children were exclusively breastfed for less than 6 months in 2003. In 2008, 17% of children were exclusively breastfed for less than 6 months (NDHS, 2008). The median exclusive breastfeeding period in southwest Nigeria by months in the year 2003 was 7 months, but in 2008, it was 6 months. Within the same period, early initiation of breastfeeding among women in the region was 12.7% in 2003, but increased to 35.5% in 2008 (NPC and ICF, 2008). The estimated figures were far below the 90% scale as recommended by the WHO (Jones, et al., 2003).

In Nigeria, breastfeeding has always been vital and its natural anti-infective properties and ideal nutritional characteristics have facilitated infant survival (Dada, et. al., 2012). The natural contraceptive effect of breastfeeding has also enabled infant survival by delaying subsequent pregnancy long enough to allow an infant to be nourished. The period of breastfeeding in traditional Nigerian communities were generally characterized by

Corresponding author: ¹ Email: zino952000@yahoo.com; Phone No. +2348061381792



abstinence from sexual relations, which also had an important child-spacing effect (Senaiumhe and Oviawe, 1996). Under some circumstances known as the lactational amenorrhea method (LAM), breastfeeding can serve as contraceptive (Kennedy and Kotelchuck, 1998; Kennedy et al., 1989). Many women opt to use this method as their form of birth control after giving birth. Some studies have demonstrated that lactational amenorrhoea method is about 98% effective in the first six months (FHI, 1988; Winikoff et al., 1988; Kennedy et al., 1989; Kennedy et al., 1989; Senaiumhe and Oviawe, 1996) where no family planning is available, exclusive breastfeeding contributes significantly to birth-spacing.

The lactational amenorrhea method (LAM) is based on frequent breastfeeding both day and night and can be achieved if the following conditions are met: menstrual periods have not resumed (amenorrhoeic); the infant is fully or nearly fully breastfed frequently, day and night; and the infant is under six months of age (less than six months postpartum) (Kennedy et al., 1989). The duration and frequency of breastfeeding is an important predictor of the effectiveness of lactation as a contraceptive. Research on LAM has found that full or nearly full breastfeeding is most effective (Caleb and Townsend, 1996). The need to practise full or nearly full breastfeeding is very important when promoting LAM. Cultural definitions of breastfeeding vary from putting the baby to the breast whenever it cries to feeding the baby only once at night. Exclusive breastfeeding should be distinguished from "full breastfeeding" because providing the infant too much water can render LAM ineffective. When women exclusively breastfeed, LAM is an effective family planning option, whereas with early supplementation, including frequent feeding with water or other liquids, the suckling stimulation is decreased, and LAM will not be quite effective. Studies have shown that LAM can also increase transition to use of modern contraceptive methods, while those who do not practise LAM are much more likely to become pregnant within 12 months postpartum (Caleb and Townsend, 1996; USAID, 2013). Promoting LAM provides an opportunity to increase child-spacing, as well as support healthy breastfeeding practices that benefit infants and young children.

Studies have shown that some socio-demographic factors influence breastfeeding. These include race, maternal age, maternal employment, level of education of parents, socio-economic status, insufficient milk supply, infant health problems, maternal obesity, smoking, parity, method of delivery, maternal interest and other related factors (Koosha et al., 2008; Nabulsi, 2009; Thulier and Merces, 2009; Nabulsi, 2009). Inadequate knowledge or inappropriate practice of breastfeeding may lead to undesirable consequences. The practice of exclusive breastfeeding is still low despite the associated benefits. Improving the uptake and appropriating the benefits will require an understanding of breastfeeding as an embodied experience within a social context, although breastfeeding mothers are faced with multiple challenges as they strive to practice exclusive breastfeeding (Agunbiade and Ogunleye, 2012). In addition, many studies have shown the causes of suboptimal breastfeeding, which are many and inter-related. In other studies, age, education, residence, marital status, occupation and smoking habit of the mother and the household's socio-economic position were identified as predictors of non-exclusive breastfeeding (Venancio and Monteiro, 2005; Shi, et al., 2008; Qiu, et al., 2009; Agho, et al., 2011; Ulak, et al., 2012; Egata, et al., 2013).

Studies have identified other mother-related risk factors (Shi, et al., 2008; Al-Sahab, et al., 2010; Agho, et al., 2011; ; Kimani-Murage, et al., 2011; Tan, 2011; Central Statistical Agency and ICF International, 2012). Such factors include maternal antenatal care (ANC) attendance, place of delivery, mode of delivery, knowledge about EBF, prelacteal feeding (feeding of infants with substances other than colostrum or first milk), timing of initiation of breastfeeding after delivery, colostrum feeding practice, caesarean delivery, smoking during pregnancy and the household food security status (Saha, et al., 2008; Gomes and Gubert, 2012). Mihrshahi (2007), Koosha (2008), Tan (2009; 2011), Sapna et al., (2009) have also asserted sex, age, gestational age at birth, birth weight of the child, diarrhoea and acute



respiratory tract infection (ARI) were found to be child-related correlates of non-exclusive breastfeeding in infants aged under six months.

NDHS (2008) notes that, in Nigeria, there was a widespread usage of EBF (97%), however its adoption, as a child-spacing method was rather low (5%). Besides, in 2008, 97% of the children were ever breastfed, while, in 2011, the overall proportion of children that were ever breastfed was about 95% (MICS Nigeria, 2011). There shows that there was a decline in children exclusively breastfed, which has implication for the decline of exclusive breastfeeding as a form of contraceptive.

There is the need for contraceptive in terms of the high crude birth rate in Ibadan, with an average of 5.7 children per woman (NDHS, 2008). Relating this crude birth rate with the reported severe² poverty (WMS = 1.58) makes the use of alternative birth control measure in the case of LAM an imperative. What can be responsible for this relatively low usage of breastfeeding as birth spacing method? The major question arising from this is "to what extent has demographic features been reflected in the low usage of EBF as a contraceptive?" Is there any distinct trend of the low usage of EBF as a contraceptive? The main objective of this study was to explore some salient features amongst Ibadan women that can explain the low utilization of EBF as a contraceptive. Specifically, the study explored demographic factors such as age, income, education, marital status, and ethnic group membership regarding exclusive breastfeeding as a method of contraception among nursing mothers currently practising EBF in Ibadan, Nigeria.

THEORETICAL FRAMEWORK

This study is anchored to Weber's Social Action and Ajzen and Fishbein's Theory of Reasoned Action. Social Action Theory examines the subjective understanding of social phenomena. Social action refers to an act which takes into account the actions and reactions of individuals (or 'agents') (Weber, 1978). According to Max Weber, "an Action is 'social' if the acting individual takes account of the behaviour of others and is thereby oriented in its course" (Weber and Secher, 1962). This presupposes that human behaviours relate to cause and effect in the social realm. The theory of social action, more than structural functionalist positions, accepts and assumes that humans vary their actions according to social contexts.

Given Weber's social action ideal types (traditional action, affective action, instrumental or purposeful social action and value rational action), it is obvious that the choice of nursing mothers using exclusive breastfeeding as a contraceptive usually involves a linkage of social relationships in which series of actions and reactions take place. These actions can fall within different categories of social action at different stages. For instance, some nursing mothers may engage in exclusive breastfeeding as a contraceptive method owing to adherence to the advantages of exclusive breastfeeding, which include protection of the child from infection, being source of nutrients, fostering mother-to-child bond and lowering the risks of early childhood deaths and being cost effective. All these advantages make exclusive breastfeeding fascinating a safe and reliable contraceptive.

In the light of the above, it is obvious that some of the actions that influence individual choice of using exclusive breastfeeding as a contraceptive may include age, educational background, marital status, religion, income, age of current child and cultural norm relating to traditional child-rearing practices. The manifestation of these factors is an exhibition of different social actions that can sustain women using exclusive breastfeeding as a contraceptive. For instance, in the post-natal clinic, women are often advised to breastfeed, with emphasis on nutritional gains. The little emphasis on exclusive breastfeeding as a birth-spacing method may not be unconnected with the lack of confidence in it by medical practitioners. They might have experienced a case where exclusive breastfeeding as a

² This is from the work of Ayoade, A. R. and Adeola, R. G. (2012), where low-income level (WMS = 1.58) was ranked as the most severe measurement of household poverty.



contraceptive method failed. They might have got a lot of complaints from nursing mothers that started menstruating two months after birth even when they were engaging in exclusive breastfeeding.

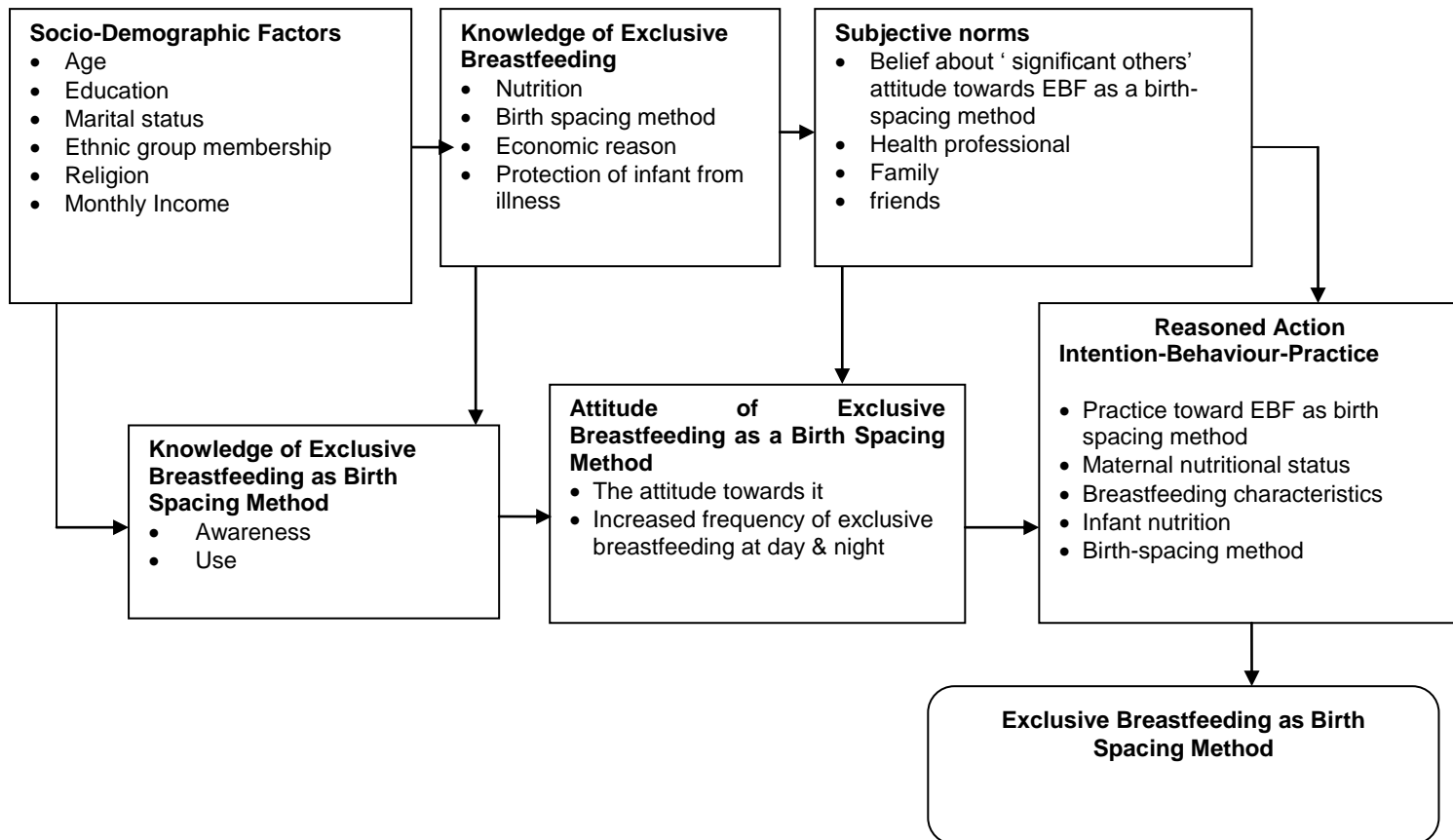
The theory of reasoned action suggests that a person's behaviour is determined by his/her intention to perform the behaviour and that this intention is, in turn, a function of his/her attitude toward the behaviour and his/her subjective norm. The best predictor of behaviour is intention and is the cognitive representation of a person's readiness to perform a given behaviour. It is considered the immediate antecedent of behaviour. Three things determine this intention: their attitude toward the specific behaviour, their subjective norms, and their perceived behavioural control. This theory details the factors and inputs that result in any particular behaviour.

According to Ajzen and Fishbein (1980), a person's attitude toward a behaviour consists of a belief that such a behaviour leads to a certain outcome and an evaluation of the outcome of that behaviour. Exclusive breastfeeding for six months from birth is of well-known importance for infants' nutrition. Breastfeeding delays the return of fertility in the mother, thus contributing to longer birth intervals. Birth-spacing allows continuation of breastfeeding for the child's benefit and has other advantages to the mother and the child. Better nutrition promotes infant and child survival, which, in turn, tends to increase birth intervals. In addition, all these processes benefit the health and well-being of the mother. If the outcome seems beneficial to the individual, lactating mothers may then intend to or actually participate in this particular behaviour of using exclusive breastfeeding as a contraceptive.

Also included in one's attitude toward a behaviour is the concept of the subjective norm. Subjective norm is a person's perception of what others around his/her believe that he/she should do. In its purest essence, subjective norm is a type of peer pressure (Ajzen and Fishbein, 1980). The people around a person influence whether or not he/she participates or intends to participate in any behaviour strongly. In the use of exclusive breastfeeding as a contraceptive, health officers who are in charge of post-natal clinic have a lot of role to play by emphasizing the advantages of exclusive breastfeeding as not only nutrition, but also the contraceptive effects, which is very cheap, effective and has no side effects on the woman and on the child. "Significant others" do and expect the degree to which someone wants to conform to others' behaviours or expectations (Stein and Jandu, 2011). People may also be inclined (or not inclined) to participate in a behaviour based on their desire to comply with others. Laws or rules prohibiting a behaviour may have an impact on one's attitude toward participating in a behaviour (Ajzen and Fishbein, 1980).

Furthermore, one's attitude toward a behaviour can lead to an intention to act (or not to act). This intention may or may not lead to a particular behaviour (Ajzen and Fishbein, 1980). People are rational and will make predictable decisions in specific circumstances and the "intention to act" is the most important determinant of behaviour. In summary, the theory of reasoned action provides a solid foundation for the understanding of individual behaviour which predicts that a person will adopt, maintain or change a behaviour if he/she believes that the behaviour will benefit him/her. The behaviour is socially desirable; there is social pressure to conform to the behaviour; and the opinion of others matters to them.

Figure 1: Conceptual Framework



The conceptual framework presented in Figure 1 represents a synthesis of the two perspectives adopted in this analysis. Figure 1 shows the connection between social action and reasoned action theories, which, though are located within the realm of sociological analysis, have strong individual components as basis of human action. Both social action and reasoned action theories explain the attitude, intention and behaviour of nursing mothers towards breastfeeding and its use as a method of family planning at varying levels.

The traditional social action focuses on actions carried out by tradition, culture or customs; while affective social action refers to emotion; purposeful social action refers to taking the appropriate steps toward a goal; and value rational action refers to the end justifying the means. At these different levels, series of actions and reactions take place with the choice and intention of nursing mothers using exclusive breastfeeding as a contraceptive, which usually involves a linkage of social relationships. Higher knowledge and intention to breastfeed exclusively will create a positive attitude that will gradually lead to practising breastfeeding as a method of family planning as an intended action.

This study is hinged on the premise that lactating mothers are active social actors who take into account the view and behaviour of others. The concern here is to examine the nexus between the socio-demographic characteristics of the respondents and the influence of these on the use of exclusive breastfeeding as a child-spacing method. Put differently, in the context of adopted theoretical approach, how do the attitude, belief and intention to use breastfeeding as a birth-spacing method by post-natal lactating mothers influenced by socio-demographic characteristics?



METHODOLOGY

This study adopted a survey design. The primary data were mainly quantitative, complemented with in-depth interviews. Secondary data were from the Nigeria Demographic Health Survey (2008). Based on the determination of sample size, given by Lemeshow et al. (1990) formula, a total of size of 338 respondents (nursing mothers) were derived for the fieldwork. The survey instrument included a questionnaire, made up of the closed-ended and open-ended items addressing the socio-demographic factors and their implications for breastfeeding and family planning method. A separate interview guide was developed for the in-depth interview.

The study area, Ibadan central (which makes up the metropolis) was purposively selected given its cultural mix. Two local government areas (LGAs) were selected through the lucky dip sampling method (Akinyele and Ibadan-North). At the LGA level, one health centre was purposively selected based on large number of clients and the fact that the centres have clientele from diverse backgrounds. These clinics were Adekunle Fajuyi Cantonment 2 Division Hospital in Akinyele LGA and Jaja Clinic in the University of Ibadan, in Ibadan North LGA. At the clinic level, the simple random sampling technique was used to select 338 nursing mothers in the health facilities. A structured questionnaire was used to measure knowledge, attitude, practice, perception, income, education, and ethnic group membership regarding exclusive breastfeeding as a birth-spacing method. Five in-depth interviews were conducted in each of the hospitals with nursing mothers.

The quantitative data generated were coded and entered into Microsoft Access software in order to minimize data entry error and to ensure effective data management. The data were finally exported to the Statistical Package for Social Science (SPSSv17), and were analyzed at univariate and bivariate levels to indicate percentages and test of associations. Further, bivariate analyses were carried out to examine the respondents' knowledge and attitude alongside maternal demographic factors. Specifically, chi-square and correlation analyses were used to measure the relationship between maternal demographic factors and knowledge/use of exclusive breastfeeding as a contraceptive method. Data from the IDI were transcribed, word-processed and content-analyzed.

The process of data collection for the study was guided by social science research ethics and ethical approval was obtained from University of Ibadan/University College Hospital/ Ethical Review Board (UI/EC/11/0042). Ethical considerations were emphasized throughout fieldwork. The ethical issues such as respondent's informed consent and freedom to withdraw from the study at any time were communicated to the respondents in unambiguous terms. In addition, privacy, anonymity and confidentiality of respondents were emphasized and observed.

RESULTS

Table 1: Socio-demographic characteristics of the respondents

Characteristics	Frequency	Percentage
Age Group (Years)		
< 20	9	2.7
21-30	200	59.2
31-40	122	36.1
41-50	3	0.9
Educational Level		
No formal schooling	2	0.6
Primary school	13	3.8
Secondary school	130	38.5
Post-secondary school	113	33.4
Tertiary school	75	22.2
Marital Status		
Single	14	4.1
Married	321	95.0
Separated/divorced	1	0.3
Ethnic Group Membership		
Yoruba	237	70.1
Igbo	55	16.3
Hausa	8	2.4
Others	37	10.9
Religion		
Traditional Belief	1	0.3
Christianity	276	81.7
Islam	59	17.5
Monthly Income Status (in naira)		
< 10,000	60	17.8
10,000-19,999	66	19.5
20,000-29,999	74	21.9
30,000-39,999	77	22.8
40,000-49,999	0	0.0
50,000-59,999	26	7.7
>60,000	28	8.3

Source: Field work, 2011.

Demographic Profiles of the Respondents

A total of 338 nursing mothers in the selected post-natal clinics participated in the study. All the responses from the 338 participants were analyzed. Table 1 shows the demographic and socio-economic characteristics of the respondents that participated in Jaja Clinic and Adekunle Fajuyi Cantonment 2 Division Hospital post-natal sessions, with reference to age, education, marital status, ethnic group, religion, and monthly income. The table indicates that there was a significant age difference amongst the respondents.

The mean educational level of the respondents was post-secondary school, while the majority of them had secondary school level of education. A total of 22.2% had tertiary education, 3.8% had primary school education, while 0.6% had no formal schooling. These figures confirm the claim in Demographic Health Survey (2008) that most nursing mothers had formal education. Also, 95.0 percent of those involved in the study were married, 4.1 percent were single mothers, while 0.3 percent were either separated or divorced.

The nursing mothers who were single (4.1%) were not fully engaging in breastfeeding their babies exclusively. This shows that marriage is associated with the responsibility of engaging in exclusive breastfeeding, in terms of paternal support of making sure that the child is breastfed exclusively. The respondents who were single mothers

formed only 4.1% of the total number of respondents. This is surprising considering the fact that the later were not fully engaged in exclusive breastfeeding in order to avoid their breasts 'sagging'. According to some of the respondents, this was owing to the advice given by their mothers, especially when such child was born outside wedlock. One of them said:

My mother always insisted that I leave my kid with her so that she can take care of my baby. She always said that she does not want me to be discriminated by neighbours that I have a child outside wedlock and she does not want my breast to sag. I am still very young though I made a mistake by becoming pregnant. So in the process when I leave my baby with my mother, she will give my baby other food. I have to breastfeed my baby very little both during the day and at night. (Nursing Mother IDI, Jaja Clinic).

Such mothers often leave their kids to their parents or 'significant others' to care for the child to avoid the societal discrimination as a single mother.

Some of the married nursing mothers also stated that they could not engage in exclusive breastfeeding, as they were advised to keep their breasts in good shape by their mothers. They stated that they wanted to remain young and look charming even after giving birth. A nursing mother disclosed thus:

I am not engaging in exclusive breastfeeding as a contraceptive because I do not practise exclusive breastfeeding. I don't want my breast to sag at all...I am married but still want to put on that good and charming look that I had before I got married...you know men these days, pursuing young girls outside their marital homes. I breastfeed occasionally, especially when my husband is annoyed that the baby is nagging with his crying and screaming. (Nursing Mother IDI, 2Div. Medical Hospital)

On ethnic group membership³ of the respondents, two of the three major groups in Nigeria recorded the highest percentages. The Yoruba were 70.1%, the Igbo were 16.3%, and the Hausa were 2.4%, while other ethnic groups, like the Igala, Urhobo, Idoma, Bade, Igarra, Isoko, Auchi, and Ijaw, put together were 10.9%. The reason for the low percentage of the Hausa involved in the study was the fact that the study was conducted in Yoruba-speaking areas.

Respondent's Knowledge of Exclusive Breastfeeding as Contraceptive and Their Educational Background

Table 2 shows the respondents' knowledge on exclusive breastfeeding as a contraceptive and educational status. Knowledge about exclusive breastfeeding as a contraceptive method among the respondents was significant with higher educational status. The respondents with post-secondary and tertiary schooling had a higher knowledge that exclusive breastfeeding can be used as a contraceptive, at 71.4 percent and 60.8 percent respectively.

³ Ethnic group membership refers to one's sense of belonging to an ethnic group as part of one's thinking, perceptions, feelings and behaviour.

Table 2: Respondents' Knowledge of EBF as a Contraceptive and Educational Level

Education	Knowledge of EBF as a contraceptive		Total
	Yes	No	
No formal schooling	0.0% (0)	100.0% (2)	100.0% (2)
Primary school	46.2% (6)	53.8% (7)	100.0% (13)
Secondary school	56.3% (72)	43.8% (56)	100.0% (128)
Post-secondary school	71.4% (80)	28.6% (32)	100.0% (112)
Tertiary school	60.8% (45)	40.0% (30)	100.0% (75)
Total	61.5% (203)	38.5% (127)	100.0% (330)
X² = 10.714; DF = 4; Asymp. Sig. (2-sided) = 0.030; P < 0.05; R = -0.095; Asymp. Sig. = 0.085			

There was an association between the educational groups and the knowledge of EBF as a contraceptive among respondents although the association was not consistent with those who had higher education and had knowledge of EBF as a contraceptive. The chi-square result ($\chi^2 = 10.714 (0.030)$) was significant at 95% level of significance. This implies that lactating mothers with higher education will demonstrate a higher level of knowledge of exclusive breastfeeding as a contraceptive method. This finding corroborates the Nigeria Demographic Health Survey (2008), which shows that knowledge of contraceptives, including lactational amenorrhoea method (LAM) is higher among women that have education but lower among women with no education.

The correlation finding ($R = -0.095 (0.085)$) showed that there was a very weak non-significant negative relationship of -0.095. Hence, there was no relationship between educational groups and the knowledge of lactating mothers on EBF as a contraceptive. The finding from the chi-square test, coupled with the supporting findings obtained from the correlation result indicated that there was an association and a weak relationship with higher educational level and knowledge of EBF as a contraceptive. This finding implies that women with higher education will not have the time seeking knowledge of EBF as a contraceptive from post-natal clinic sessions, whereas women who have lower education will have the time to seek for knowledge of EBF as a contraceptive and will also gather such knowledge from 'significant others' (family members and friends).

The finding above is in line with the qualitative data, which equally reinforced the relationship between high knowledge and low practice of EBF as a contraceptive. One of the respondents asserted that:

I learnt about exclusive breastfeeding as birth-spacing when I was in the tertiary institution. Nevertheless, I do not practice it because of my job. I am a banker and I leave for office very early and come to the crèche to pick my baby very late. I spent a lot of my time in the night in reconciling accounts in my place of work and having to head board meetings at late hours. Therefore, I do not have the time to engage fully in exclusive breastfeeding as a contraceptive. But exclusive breastfeeding as birth-spacing is good...is beneficial to the child and the mother also. (Nursing Mother IDI, Jaja Clinic).

Some nursing mothers that do not have full formal education spent time in practising exclusive breastfeeding. Most times, they attend post-natal sessions for the health talk by the nurses and they fully participate in the educational talk while others have a discussion on EBF as a contraceptive with significant others. A nursing mother with secondary school level of education affirmed that:

My friends told me about exclusive breastfeeding as a birth-spacing method. I did not know it before. I just had secondary school certificate and you know we (students) were not engaged in such discussions on family planning or contraceptive usage. The nurses here in this medical centre do not discuss breastfeeding as birth-spacing. Nevertheless, my friends...even my mother told me that...and that is what



she used during her time. I engaged fully in exclusive breastfeeding and it serves me as birth-spacing method. I go to my shop to trade and my business creates time for me to breastfeed my baby...always...on demand I give him breast milk. I also spent a lot of time breastfeeding him in the night. (Nursing Mother IDI, 2Div. Medical Hospital).

According to a highly educated nursing mother, many educated women do not engage fully in exclusive breastfeeding owing to societal demands of keeping one in shape and intact. A nursing mother attested to this when she said:

I have not been practising exclusive breastfeeding itself and the use of it as a contraceptive cannot be achieved, the reasons being that I am ashamed to breastfeed my baby outside the home. I am educated...highly educated, I have Master's degree and I know the importance of breastfeeding and I have the knowledge of the benefit of breastfeeding but I just cannot bring out my breast in public. Therefore, if my baby cries, I beckon on my nanny to carry the baby from me and so she will feed him with infant formula...Fiso Cream Infant Formula...so I do not practise exclusive breastfeeding at all. (Nursing Mother IDI, Jaja Clinic)

Respondents' Knowledge of Exclusive Breastfeeding as a Contraceptive and Income Level

Altogether, 61.7 percent of respondents that earned below ₦10,000 had knowledge that EBF can help in spacing of children and 38.3 percent of them did not have the knowledge of EBF as a contraceptive. Forty-two percent of those that earned between ₦10,000 and ₦19,000 responded that EBF could be used as a contraceptive, while 57.6 percent of them did not have the knowledge of EBF as a contraceptive. Those earning between ₦20,000 and ₦29,999 were 64.4 percent; they claimed to have a knowledge of EBF as a contraceptive, while 35.6% of them said that they did not have the knowledge of EBF as a child-spacing method. Those who earned between ₦30,000 and ₦39,999 were 68.8 percent and they said that EBF could help in spacing of children, while 31.2 percent of them said that EBF could not help in spacing of children. Those who earned between ₦50,000 - ₦59,999 and ₦60,000 were 76.9 percent and 64.3 percent, respectively; and had knowledge of EBF as a contraceptive. However, 23.1 percent and 35.7 percent of them respectively did not have the knowledge of EBF as a child-spacing method.

The findings also showed that there was a significant association between the income levels and the knowledge of EBF as a contraceptive ($\chi^2 = 14.854$; $P < 0.05$). The relationship between lactating mothers with knowledge of EBF as a contraceptive and monthly income has been statistically established. A total of 61.5 percent of respondents had the knowledge that EBF can help in spacing of children, while 38.5 percent of them did not have the knowledge that EBF can help in spacing of children.

The figures reported above point to the fact that women with higher income will not have much knowledge on EBF as a contraceptive because they are occupied with their jobs. Women with lower income will have knowledge of EBF as a contraceptive since their occupational status will allow them to access antenatal and post-natal clinic sessions where the health officers educate them on EBF as a contraceptive. For economic reasons, women with lower income will tend to breastfeed their babies more than women with higher income will. Furthermore, the correlation ($R = -0.118$ (0.032)) indicated that there was a very weak significant negative relationship of -0.118, which showed that there was a relationship between income and the knowledge of EBF as a contraceptive. But income affected the attitude of mothers on the use of EBF as a form of contraceptive negatively. A nursing mother asserted that:

I prefer to buy infant formula to save me the stress of breastfeeding. Once I get my salary, I just buy a carton of baby food which will last for a month...though I know the impact of exclusive breastfeeding on the child as nutrition and I know it also serves

as contraceptive to the woman. I only breastfeed my baby for three months...but when you can afford infant formula, why the trouble for breastfeeding. I buy infant formula and that is how I have been doing. (Nursing Mother IDI, Jaja Clinic)

According to a nursing mother, women who do not practise exclusive breastfeeding with their babies have alternatives for the feeding of their child, such as buying infant formula. They are very expensive and women with lower income cannot afford such infant formula; they have no choice other than to engage in exclusive breastfeeding as a contraceptive.

I cannot afford infant formula because I do not have money to buy one. So I engage in exclusive breastfeeding and it helps my baby and me. The infant formula is very expensive; I am a full housewife selling petty things in the house...I cannot pay for infant formula. (Nursing Mother IDI, 2Div. Medical Hospital).

Age of Respondents and the Use of Exclusive Breastfeeding as Contraceptive

Table 3 shows that there was no association between the age of respondent and the use of EBF as a contraceptive. The chi-square result ($\chi^2 = 0.164$ (0.983)), which was not significant at 95% level of significance, indicated specifically that nursing mothers with higher age bracket could demonstrate a high level of use of EBF as a contraceptive. However, this finding does not validate the Nigeria Demographic Health Survey (2008) results, which shows that there is a decline in the ever use and current use of EBF as a contraceptive with the older women of the age bracket 40-49 years.

Table 3: Age of Respondents and the use of EBF as a Contraceptive

Age of respondents	The use of EBF as a contraceptive		Total
	Yes	No	
< 20	55.6%	44.4%	100.0%
21-30	55.2%	44.8%	100.0%
31-40	55.7%	44.3%	100.0%
41-50	66.7%	33.3%	100.0%
Total	55.5%	44.5%	100.0%

$\chi^2 = 0.164$; $df = 4$; **Asymp. Sig. (2-sided) = 0.983**; $R = -0.011$; **Approx. Sig. = 0.846**; $P = 0.05$

However, the findings showed that women within the higher age bracket (31-40 and 41-50 years) would consider the use of EBF as a contraceptive (66.7% and 55.7%, respectively). There was a decline with age cohort of 21-30 years (55.2 percent) on the use of EBF as a contraceptive. Women in this cohort always find it difficult to breastfeed their babies exclusively because they do not want their breasts to sag since they are still young.

Although other respondents mentioned that they had their babies through caesarean operation, which affected breastfeeding their babies exclusively from the first day of birth. They emphasized that they did not even know where their babies were for a week owing to the condition of their health after the operation. The correlation findings ($R = -0.011$ (0.846)) showed that there was a very weak non-negative significance of -0.011. Hence, the majority of them, especially those nursing mothers with higher age would consider the use of EBF as

a contraceptive. Speaking on the condition of some nursing mothers' health after childbirth, a nursing mother recounted:

This is my first baby and I gave birth through caesarean operation. I went through hell after the operation. I did not know where I was and where my baby was. I almost went into coma...I almost lost my life...so in that type of condition, I do not know what is exclusive breastfeeding or contraceptive. All I was asking and praying for is to save my life. Therefore, I did not breastfeed my baby for four months. (Nursing Mother IDI, Jaja Clinic)

Respondents' Ethnic group Membership and Use of EBF as a Contraceptive

Table 4 shows respondents' ethnic group membership and the use of exclusive breastfeeding as a contraceptive. The major ethnic groups would consider the use of exclusive breastfeeding as a contraceptive, as reflected in the Hausa ethnic group (87.5%), followed by the Igbo (65.4%) and the Yoruba's (55.7%). The chi-square result ($\chi^2 = 11.598$ (0.009)) showed that there was an association between ethnic group membership and use of EBF as a contraceptive, which was significant at 95% level. The result implies that the Hausa will consider the use of EBF more than all other ethnic groups. Other ethnic groups outside the three major ethnic ones (35.1 percent) were the least to consider the use of EBF as a contraceptive.

Table 4: Ethnic Group Membership and Use of EBF as a Contraceptive

Ethnic group membership	Use of EBF as a Contraceptive		Total
	Yes	No	
Yoruba	55.7% (131)	44.3% (104)	100.0% (235)
Igbo	65.4% (34)	34.6% (18)	100.0% (52)
Hausa	87.5% (7)	12.5% (1)	100.0% (8)
Others	35.1% (13)	64.9% (24)	100.0% (34)
Total	55.7% (185)	44.3% (147)	100.0% (332)
$\chi^2 = 11.598$; Asymp. Sig. (2-sided) = 0.009; R = 0.079; Approx. Sig. = 0.153; p = 0.05			

The correlation result ($R = 0.079$ (0.153)) showed that there was a very weak non-significant positive relationship of 0.079. Hence, ethnic group membership did not have significant impact on the use of EBF as a contraceptive. However, even though ethnic group does not have a positive impact on the use of EBF, some particular ethnic groups will tend to use EBF as a contraceptive owing to their cultural custom or belief about exclusive breastfeeding which will, in turn, serve them as a contraceptive unknowingly. For instance, the Hausa traditional child rearing practice of exclusive breastfeeding for the first four months has aided its use as a contraceptive method. Discussions with nursing mothers from the major ethnic groups lent credence to the quantitative analysis. One from each group is presented below:

When I put to birth at home in the North, my mother told me to breastfeed my baby very well. She told me that it is the custom of my place that I breastfeed my baby so that it will help the blood in my womb to come out and I will be strong. Therefore, I have to breastfeed because my mother is always there to supervise me (Nursing Mother (Hausa) IDI, 2Div. Medical Hospital).

We breastfeed in my place...it is cultural that you breastfeed. In Igbo land where I come from, when you breastfeed it shows that the baby is your own...you did not adopt the child...most especially the family members of the man will see you breastfeed even though they see me with pregnancy. So I breastfeed my baby very well and they see me breastfeed my baby...that is the culture...I must follow the culture. (Nursing Mother (Igbo) IDI, Jaja Clinic).



I breastfeed my baby but not always on demand of my child. It is very stressful...although in Yoruba land, where I come from, our mothers encourage us to engage in exclusive breastfeeding because they believe that it will pave way for another baby. I know exclusive breastfeed as birth-spacing method is good....but I cannot use it because I do not engage in exclusive breastfeeding...I do not breastfeed my baby on demand with breast milk. (Nursing Mother (Yoruba) IDI, Jaja Clinic)

Respondents' Attitudes to Exclusive Breastfeeding and Its Use as Contraceptive

Table 5 captures the respondents' attitudes towards exclusive breastfeeding as nutrition to their babies and its use as a contraceptive. The higher the wider knowledge of respondents on the advantages of exclusive breastfeeding, the more they will embrace it as a contraceptive. Their higher knowledge of the benefits of exclusive breastfeeding as nutrition, development of child well-being, high academic performance and as a contraceptive, did not make the nursing mothers to have a positive attitude to using exclusive breastfeeding as a contraceptive. This indicated the lower level of the attitude of the nursing mothers towards the use of exclusive breastfeeding as a contraceptive. However, 56.1 percent of the total respondents agreed that they had considered the use of EBF as a contraceptive, while 43.9 percent had not considered the use of exclusive breastfeeding as a contraceptive.

Table 5: Respondents' Attitudes towards Exclusive Breastfeeding as a Contraceptive Method

Approve of EBF as a contraceptive to space children	Considered the use of EBF as a contraceptive		Total
	Yes	No	
Yes	45.4% (149)	10.1% (33)	55.5% (182)
No	10.7% (35)	33.8% (111)	44.5% (328)
Total	56.1% (184)	43.9% (144)	100.0% (328)

In addition, 55.5 percent of the respondents said that they had approved of EBF method to space children, while 45.4 percent of the nursing mothers said that they had not approved of the EBF method of contraception and 10.1 percent of them said that they had not considered the use of EBF as a contraceptive. Furthermore, 44.5 percent of them responded that they had not approved of the EBF method to space children; while 10.7 percent of them said that they had considered the use of EBF as a contraceptive to space children; while 33.8 percent said that they had not considered the use of EBF as a contraceptive.

It is evident that even nursing mothers that had approved EBF as a contraceptive for their use did not use EBF as a contraceptive. The reason was that most of the nursing mothers had regained their menstrual cycle when their babies were less than six months even when they were exclusively breastfeeding their babies. Thirty-four percent of the respondents said that they had regained their menstrual cycle even though they were using exclusive breastfeeding as a contraceptive. Few lactating mothers who did not approve of EBF as a way of spacing children still considered the use of EBF as a contraceptive by complementing it with other family planning methods. A total of 9.0% of the respondents (nursing mothers) said that they would use pills as supplement and 4.4 % of them said that they would use injective as supplement. While 3.0% of the respondents said that they would use IUD/Diaphragm as supplement and 14.5% of them said that they would use condom as



supplement. Two percent of them said that they would use abstinence as supplement, while 0.6% of them said that they would use implants as supplement. This attitudinal disposition was also displayed in the discussions with respondents, as captured in the excerpts below:

I am breastfeeding my baby but I am menstruating. It is not working for me at all. I have to use other family planning method or else I will get pregnant again. (Nursing Mothers IDI, Jaja Clinic)

I did engage in exclusive breastfeeding but I am not menstruating at all. It serves me as a birth spacing method. I have been using it to space m four kids. It is good if you can breastfeed exclusively. (Nursing Mothers IDI, 2Div. Medical Hospital)

It does not work for me but it works for some people. I know my friends it works for and they use it. However, I do not use it because it does not work for me. I breastfeed my baby exclusively but exclusive breastfeeding does not work for me as a birth-spacing method. (Nursing Mothers IDI, 2Div. Medical Hospital)

Exclusive breastfeeding is good for birth-spacing. I used it and it work for me but I do not trust exclusive breastfeeding as a contraceptive. Yes, it works for me but I know some people exclusive breastfeeding does not work for them. So I am afraid that it might fail me. Therefore, I used other family planning methods like pills or injectables to supplement it. I do not want the trouble of being pregnant and at the same time breastfeeding the current child. (Nursing Mothers IDI, Jaja Clinic).

Exclusive breastfeeding works for me as birth-spacing method. I did not know about it initially until a friend came to visit me and discuss with me about it. I started using it with my second baby and it is very effective and helpful. I do not have the problem of side effects with it unlike the other forms of birth spacing methods I used before. It is very effective and it works for me very well with no side effects. (Nursing Mothers IDI, Jaja Clinic)

Furthermore, 29.9% of the nursing mothers responded that they were currently using any contraceptive method, while 66.3% said that they were not currently using any contraceptive method. Most of the nursing women that were currently using EBF as a contraceptive (94.2%) were complementing it with other contraceptives. The implication is that multiple contraceptive use does not equate to the effectiveness of exclusive breastfeeding as a contraceptive method amongst the nursing mothers. The fact that they are simultaneously multi-sourcing for contraceptive is an indication of lack of trust in it as a method of family planning. Those nursing mothers that were not using any contraceptive method (66.3%) were those who never knew that they were experiencing the contraceptive benefits of exclusive breastfeeding. This shows that if mothers have positive attitude towards EBF not only as a nutrition per se but also as an effective method to space children, the use of it will be high and women will be able to achieve its benefits as a contraceptive when they are exclusively breastfeeding their babies.

The chi-square test result ($\chi^2 = 110.257$ (0.000)) showed that the relationship at 99% (0.01) level was significant, implying a strong association between attitude of nursing mothers and their use of EBF as a contraceptive. The more the nursing mothers are well disposed to using EBF as a contraceptive, the more they will use it and will be very effective. Also, the correlation finding ($R = 0.580$ (0.000)) showed that there was a very strong positive significant relationship between attitude on EBF and the use of EBF as a contraceptive. This presupposes that if nursing mothers have a positive attitude towards exclusive breastfeeding, it will benefit them as a contraceptive. Moreover, the attitude of mothers play a great role on the use of EBF as a contraceptive; that is, if nursing mothers have a positive attitude of EBF as a contraceptive method, they will have the positive intention and a higher positive tendency to use EBF as a family planning method.



DISCUSSION

This study focused on some of the salient features of the socio-demographic characteristics of nursing mothers on exclusive breastfeeding, not only as nutrition but also as a method of family planning. The findings are in consonance with some earlier studies. For instance, Caldwell (1979); Dyson & Moore (1983) and NPC and ICF Macro's Nigeria Demographic Health Survey (2008) claim that better-educated women were more willing to engage in innovative behaviour than are less educated women. They also assert that better-educated women were had more knowledge of contraceptive methods or of how to acquire them than are less educated women because of their literacy, greater familiarity with modern institutions, and greater likelihood of rejecting a fatalistic attitude towards life.

There is good evidence that, for whatever reason, women's education promotes the use of contraception in most developing countries, like Nigeria (Cochrane, 1979). The contribution of lactation is evident and well documented, especially regarding EBF aiding longer intervals between pregnancies. This fact led to a worldwide recommendation of the use of EBF as a contraceptive based on the Bellagio Consensus on exclusive breastfeeding as a contraceptive.

Findings in this study indicated that respondents' knowledge of contraceptive, including exclusive breastfeeding as a contraceptive method, is higher amongst women that have education but lower among women with no education. However, women with higher education were found not to have time seeking for knowledge of exclusive breastfeeding as a contraceptive unlike women with lower education, especially by engaging in post-natal clinic sessions. Women with lower education were found to seek EBF knowledge as a contraceptive from 'significant others'. Furthermore, it was shown that women with higher income did not have much knowledge on exclusive breastfeeding as a contraceptive as they were 'occupied' with their jobs. Women with lower income had knowledge of exclusive breastfeeding as a contraceptive since their occupational status allowed them to have time to access antenatal and post-natal clinic sessions where exclusive breastfeeding as a contraceptive method is taught.

The findings showed that of the three major ethnic groups, the Hausa led in the use of exclusive breastfeeding as a contraceptive. The lactating mothers with higher age bracket (41-50 years) demonstrated a high-level use of exclusive breastfeeding as a contraceptive, although the adolescents among them submitted that they would consider its use in the future. A decline was noticeable in those early adulthood age (21-30 years) who had ever considered exclusive breastfeeding as a contraceptive. A sudden rise emerged in the consideration for the use of exclusive breastfeeding as a contraceptive method among those in the age bracket 31-40 years. In addition, older women, those with higher income, education level, and parity were less likely to practise exclusive breastfeeding as a contraceptive solely since they were most likely to want to put a stop to child bearing.

In sum, the knowledge of the respondents had impact on the action to adopt exclusive breastfeeding as a contraceptive. Their high knowledge, related to their attitude. This should have given a corresponding high practice but this was not so. This could be attributed to other socio-demographic variables such as age, education, income and cultural norm relating to traditional child rearing practices.

CONCLUSION

There are several studies on EBF as a form of contraceptive (Labbok et al., 1994; Wade et al., 1994; Kazi et al., 1995; Cooney et al., 1996). Understanding the factors that influence contraceptive use is critical to the efforts of programmes to increase prevalence. Much unmet need for family planning persists, even in settings where knowledge of contraceptive method is high. Studies indicated that many potential users of any form of family planning method choose not to use any method, owing to misperceptions and concern about health-related risks (Labbok et al., 1994; Oyedokun, 2004). For instance, a study in Maldives found that knowledge of family planning was universal but only 30% of couples were using a



contraceptive method. Several studies, including one from Malaysia, found that non-use of contraceptives was linked to fear about side effects (Population Reports, 1999; Oyedokun, 2004).

However, this study has shown that knowledge of EBF as a nutrition for the child among nursing mothers is high but its use as a form of contraceptive is declining. There is a gap between knowledge of EBF, attitude towards the use of EBF as a form of contraceptive and the use of EBF as a contraceptive. This implies that socio-demographic factors play a central role in the level of knowledge, attitude and practice of EBF as nutrition and as a form of contraceptive among nursing mothers. In conclusion, socio-demographic factors are crucial in the adoption/utilization of exclusive breastfeeding as a contraceptive. The older the age, and the higher the education, and knowledge, the higher the possibility of utilization of exclusive breastfeeding as a contraceptive is. Efforts should therefore, be directed at increasing knowledge in the lower grassroots level, especially for early adults because they still have higher potential for child bearing.

**REFERENCES**

- Agho, K. E.; Dibley, M.J.; Odiase, J.I. and Ogbonmwan, S.M. 2011. Determinants of exclusive breastfeeding in Nigeria. *BMC Pregnancy Childbirth*. Volume. 11, No. 2: Pp. 1-4.
- Agunbiade, O. M. and Ogunleye, O. V. 2012. Constraints to exclusive breastfeeding practice among breastfeeding mothers in Southwest Nigeria: implications for scaling up. *International Breastfeeding Journal*, 7: 5. Pp. 1-10.
- Ajzen, I. & Fishbein, M. 1980. *Understanding attitudes and predicting social behaviour*. Englewood Cliffs, NJ: Prentice-Hall.
- Ayoade, A. R. & Adeola, R. G. 2012. Effects of poverty on Rural Household Welfare in Oyo State, Nigeria. *Global Journal of Science Frontier Research Agriculture & Biology* Volume 12, Issue 4:Pp. 1-9.
- Al-Binali, A. M. 2012. Breastfeeding knowledge, attitude and practice among school teachers in Abha female educational district, southwestern Saudi Arabia. *International Breastfeeding Journal*, vol. 7:10. Pp. 1-3.
- Sapna, S.P.; Ameya, A.H.; Rooma, S.P.; Aarti, P.; Rashid, A.K. and Narayan, K.A. 2009. Prevalence of exclusive breastfeeding and its correlates in an urban slum in western India. *International Journal of Science Medicine & Education*, 3(2):14–18.
- Al-Sahab, B.; Lanes, A.; Feldman, M. and Tamim, H. 2010. Prevalence and predictors of 6 - months exclusive breastfeeding among Canadian women: a national survey. *BMC Pediatr*. 2010, vol. 10, No. 20: Pp. 1-7.
- Caldwell, J.C. 1979. Education as a factor in mortality decline: An examination of Nigerian data. *Population Studies*, (November) 33: 395-413.
- Caleb, L.M. and Townsend, J.W. 1996. *Lactational amenorrhoea method for birth spacing in Uttar Pradesh*, India: Population Council, Operations Research and Technical Assistance Project.
- Central Statistical Agency [Ethiopia] and ICF International, 2012. *Ethiopia demographic and health survey 2011*. Addis Ababa, Ethiopia and Calverton, Maryland, USA: Central Statistical Agency and ICF International; 2012.
- Cochrane, S.H. 1979. *Fertility and education: What do we really know?* Baltimore: Johns Hopkins University Press.
- Dada, O.A.; Akesode, F.A.; Olanrewaju, D.M.O.A.; Sule-odu, O.; Fakoya, T.A.; Oluwole, F.A.; Odunlami, B.V. and W.H.O. 2002. Infant feeding and lactational amenorrhoea in Sagamu, Nigeria. *Africa Journal of Reproductive Health* vol. 6: Pp. 39-50.
- Dyson, T. & Moore, M. 1983. On kinship structure, female autonomy and demographic behavior in India. *Population and Development Review (March)* 9: 35-60.
- Egata, G.; Berhane, Y. and Worku, A. 2013. Predictors of non-exclusive breastfeeding at 6 months among rural mothers in east Ethiopia: a community-based analytical cross-sectional study. *International Breastfeeding Journal* vol. 8, No. 8: Pp. 1-16.
- Family Health International (FHI). 1998 or 1988. Breastfeeding as a family planning method. *Lancet*, Nov.19, Pp. 1204-1205.
- Gomes, G.P. and Gubert, M. 2012. Breastfeeding in children under 2 years old and household food and nutrition security status. *Journal de Pediatric*, 2012, vol. 88(3): Pp. 279–282.
- Institute of Advanced Medical Research and Training (IMRAT) 2011. *Notice of full approval after full committee review UI/EC/11/0042*. College of Medicine, University of Ibadan, Ibadan, Nigeria.
- James, D. C. S. and Lessen, R. 2009. Position of America Dietetic Association: promoting and supporting breastfeeding. *Journal of American Dietary Association.*, 109 (11): Pp. 1926-1942.
- Jones, G.; Steketee, R. W.; Black, R. E.; Bhutta, Z. A.; Morris, S. S. 2003. Bellagio Child Survival Study Group: How many child deaths can prevent this year? *Lancet*, vol. 362: Pp. 65-71.



- Kennedy, K. et al. 1989. Consensus Statement on the use of breast-feeding as a family planning method. *Contraception*, 39: 477-496.
- Kennedy, K.I. and Kotelchuck, M. 1998. Policy Considerations for the introduction and promotion of the lactational amenorrhoea method: advantages and disadvantages of LAM". *Journal of Human Lactation*. vol. 14: Pp. 191-203.
- Kennedy, K.I.; Rivera, R. and McNeilly S. 1989. Consensus statement on the use of breastfeeding as a family planning method. *Contraception* 39(5): Pp. 477-496.
- Kimani-Murage, E.W.; Madise, N.J.; Fotso, J.C.; Kyobutungi, C.; Mutua, M.K.; Gitau, T.M. and Yatich N. 2011. Patterns and determinants of breastfeeding and complementary feeding practices in urban informal settlements, Nairobi Kenya. *BMC Public Health*, vol. 11: p. 396.
- Koosha, A.; Hashemifesharaki, R. and Mousavinasab, N. 2008. Breastfeeding patterns and factors determining exclusive breast-feeding. *Singapore Medical Journal*, vol. 49(12): Pp. 1002–1006.
- Kramer, M. S. and Kakuma, R. 2002. The optimal duration of exclusive breastfeeding: a systematic review. Department of Nutrition for Health and Development & Department of Child and Adolescent Health Organization. Accessed on October 20, 2013 from http://www.who.int/nutrition/publications/optimal_durationexc_bfeeding_review_eng.pdf.
- Labbok, M.H.; Perez, A.; Valdes, V.; Sevilla, F.; Wade, K.; Lukaran, V.H. et al. 1994. The lactational amenorrhoea method (LAM): a postpartum introductory family planning method with policy and program implications. *Advances in Contraception* vol. 10: Pp. 93-109. [CrossRef] [Medline] [Web of Science].
- Lemeshow, S.; Hosmer, D.W.; Klar, J. and Lwanga, S.K. 1990. *Adequacy of sample size in health studies*. Geneva: World Health Organization.
- Mihrshahi, S.; Ichikawa, N.; Shuaib, M.; Oddy, W.; Ampon, R.; Dibley, M.J.; Kabir, A.K.M.L. and Peat, J.K. 2007. Prevalence of exclusive breastfeeding in Bangladesh and its association with diarrhoea and acute respiratory infection: results of the multiple indicator cluster survey 2003. *Journal of Health Population Nutrition*, 25(2): Pp. 195–204.
- Nabulsi, N. 2009. Why are breastfeeding rates low in Lebanon? A qualitative study. *BMC Pediatric*, 11: 75.
- National Bureau of Statistics (NBS) and Multiple Indicator Cluster Survey (MICS), 2011. Monitoring the situation of children and women. *Multiple Indicator Cluster Survey Nigeria*; Main Report, April 2013: Pp. 1- 420.
- Multiple Indicator Cluster Survey 2011. National Bureau Statistics (NBS), United Nations Children's Fund (UNICEF), United Nations Population Fund (UNFPA); *Multiple Indicator Cluster Survey Nigeria*, 2011; Main Report, April 2013: Pp. 1- 420.
- Nigeria Demographic and Health Survey 2008. National Population Commission (NPC) [Nigeria] and ICF Macro, 2009. National Population Commission and ICF Macro, Abuja, Nigeria: National Population Commission and ICF Macro.
- National Population Commission (NPC) [Nigeria] and ICF Macro, 2009. Nigeria Demographic and Health Survey 2008. National Population Commission and ICF Macro, Abuja, Nigeria: National Population Commission and ICF Macro.
- Qiu, L.; Zhao, Y.; Binns, C.W.; Lee, A.H. and Xie, X. 2009. Initiation of breastfeeding and prevalence of exclusive breastfeeding at hospital discharge in urban, suburban, and rural areas of Zhejiang China. *International Breastfeeding Journal* 2009, vol. 4, No. 1: Pp. 1-5.
- Saha, K.K.; Frongillo, E.A.; Alam, D.S.; Arifeen, S.E.; Persson, L.A.; Rasmussen, K.M. 2008. Household food security is associated with infant feeding practices in rural Bangladesh. *Journal of Nutrition*, vol. 138: Pp.1383–1390.
- Senaiumhe, A.E. and Oviawe, O. 1996. The changing pattern of post partum sexual abstinence in a Nigerian Rural Community *Social Science Medical*; 23(7): Pp. 683-686.
- Shi, L.; Zhang, J.; Wang, Y. and Guyer, B. 2008. Breastfeeding in rural China: association between knowledge, attitudes, and practices. *J Hum Lact* 2008, vol. 24: Pp. 377–385.



- Tan, K. L. 2011. Factors associated with exclusive breastfeeding among infants under-six months of age in peninsular Malaysia. *International Breastfeeding Journal*, 2011, vol. 6, No. 2: Pp. 1-5.
- Tan, K.L. 2009. Factors associated with non-exclusive breastfeeding among 4-week post-partum mothers in Klang district, Peninsular Malaysia. *Malaysian Journal of Nutrition*, vol. 15(1): Pp. 11–18.
- Thulier, D. and Mercer, J. 2009. Variables associated with breastfeeding duration. *J Obstet Gynaecol Neonatal Nurs* 2009, 38 (3): Pp. 259-268.
- Ulak, M.; Chandyo, R. K.; Mellander, L.; Shrestha, P.S. and Strand, T.A. 2012. Infant feeding practices in Bhaktapur, Nepal: a cross-sectional, health facility based survey. *International Breastfeeding Journal*, vol. 7, No.1: Pp. 1-6.
- United States Agency for International Development (USAID), 2013. ADS Chapter 212- Breastfeeding Promotion. Functional Series 200- Programming Policy. Pp. 1-10.
- Venancio, S.I. and Monteiro, C.A. 2005. Individual and contextual determinants of exclusive breastfeeding in Saˆo Paulo, Brazil: a multilevel analysis. *Public Health Nutr* 2005, vol. 9: Pp.40–46.
- Weber, M. 1978. *Economy and society: an outline of interpretive Sociology*, USA: University of California Press.
- Weber, M. & Secher, H.P. 1962. Basic concepts in Sociology. Contributions: Max Weber and H.P. Secher: *the citadel press*, New York.
- Winikoff, B.; Semeraro, P. and Zimmerman, M. 1988. *Contraception during breastfeeding: a clinician's source book*. New York: The Population Council.
- World Health Organization (WHO), 2002. Global strategy for infant and young child feeding [Internet]. Geneva, Switzerland: World Health Organization; [updated 2002 May 18]. Accessed on November 1, 2013 from <http://www.who.int/nutrition/publications/gsinfantfeedingtexteng.pdf>.
- Wade, K.; Sevilla, F. & Lobbok, M. 1994. Integrating the lactational amenorrhea method into family planning program in Ecuador. *Studies in Family Planning* 25(3): 162-175.
- Kazi, A.; Kennedy, K.I.; Visness, C.M. & Khan, T. 1995. Effectiveness of the lactational amenorrhea method in Pakistan. *Fertility and Sterility*. 64:717-723.
- Cooney, K.A.; Nyuirabukeye, T.; Lobbok, M.H.; Hoser, P.H. & Balard, E. 1996. An assessment of the nine-month lactational amenorrhea method (MAMA-9) in Rwanda. *Study Family Planning* 27:162-171.
- Oyedokun, A.O. 2004. Domestic violence and contraceptive use in Ife-North Local Government Area of Osun State, Nigeria. *Unpublished M.Sc. thesis* submitted to the Department of Demography and Social Statistics, Obafemi Awolowo University, Ile-Ife, Nigeria. 169.
- Population Reports 1999. Ending Violence against Women. *Series L*, Number 11. Volume XXVII, No. 4, December 1999.
- World Health Organization (WHO), 2003. Global strategy for infant and young child feeding. *Geneva*: World Health Organization, 2003.