Breastfeeding practices among mothers of children aged 1–24 months in Egor Local Government Area of Edo State, Nigeria

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Introduction

Under-nutrition is estimated to cause 3.1 million child deaths annually worldwide. About half of all child deaths have been associated with under-nutrition.1 It has been estimated that optimal breastfeeding of children under two years of age has the potential to prevent 1.4 million deaths in children aged under five in the developing world annually.2 The period from birth to the second year of life is a vulnerable period for under-nutrition as well as a critical window period for the promotion of optimal growth, health and behavioural development. Poor nutrition during this critical period is associated with significant morbidity and mortality, and delayed motor and mental development as immediate consequences, while impairments in intellectual performance, work capacity, reproductive outcomes and overall health during adolescence and adulthood constitute long-term consequences.3

The World Health Organization and the United Nation Children’s Emergency Fund (UNICEF) have recommended that children should be exclusively breast fed for the first six months of life after which nutritionally adequate and safe complementary foods are commenced while continuing breastfeeding up to two years and beyond.4 In addition to the nutritional benefits of breastfeeding there are other non-nutritional benefits to both the baby and mother. These include protection from gastrointestinal infections and enhanced immunity through transfer of antibodies in the breast milk,5 increased bonding between mother and child, reduced incidence of chronic diseases such as diabetes mellitus, obesity, heart diseases and cancers, and enhanced cognitive and intelligence quotient in comparison with formula-fed infants.5

Optimal breastfeeding practices entail early initiation of breastfeeding within one hour postpartum, exclusive breastfeeding, timely initiation of nutritionally adequate and safe complementary foods at six months and continued breastfeeding for up to two years and beyond.

Many infants, due to diverse sociocultural factors, are not optimally breast fed and this has consequences for child survival.5 Only about 36% of infants aged 0–6 months worldwide were exclusively breast fed over the period of 2007–2014.6 In Nigeria, the prevalence of exclusive breastfeeding nationwide is 17% with regional variations.7

In Nigeria, the prevalence of early initiation of breastfeeding was 33.2% according to the Nigeria Demographic and Health Survey (NDHS) report in 2013.7 Other studies within Nigeria reported prevalence ranging from 28%–45%.8,9 Some of the reasons for late initiation of breastfeeding include Caesarean section, delayed milk flow, maternal or infant illness and stress of labour necessitating a rest postpartum.7

Timely initiation of complementary foods remains a challenge as 16% of Nigerian infants are introduced to solid and semi-solid foods at 2–3 months while 40% are introduced at 4–5 months,
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contrary to the WHO recommendation of six months. Complementary foods fed to infants aged less than six months reduce the quantity of breast milk consumed by the infant, which will deprive the infant of the maximum benefits of breastfeeding.

There are regional variations in the duration of breastfeeding and studies have shown that most mothers do not breastfeed for up to two years. On average, children in Asia and Africa are taken off the breast at around 16–18 months, while in Latin America and the Caribbean the average breastfeeding duration is 9–10 months. In Nigeria the median duration of breastfeeding as reported in the 2013 Nigeria Demographic Health Survey is 18.3 months.

Undernutrition remains a major challenge arising from suboptimal breastfeeding practices. About 161.5 million children aged less than five years globally were estimated to be stunted in 2013, while 50.8 million have low weight for height. In Nigeria, the prevalence of stunting in children aged less than five years is 37% while that for severe stunting is 21%. These have severe consequences for child survival.

Assessment of the breastfeeding practices at the community level through research helps to keep track of current breastfeeding practices among mothers and provides a basis for improving these practices in the community. This study aimed to determine the breastfeeding practices of mothers in Egor Local Government Area (LGA) of Edo State, Nigeria.

Methodology
This was a descriptive cross-sectional study carried out between May 2016 and January 2017 in Edaiken Community in Egor LGA of Edo State. The study population consisted of mother and child pairs.

Study location and site
The study was conducted in the Edaiken community, which is located in Egor LGA of Edo State. A total of 418 mother and child pairs were recruited by a multi-stage sampling technique. Uselu ward was selected from 10 wards using a simple random technique, while the Edaiken community was selected from the five communities in the Uselu ward using simple random sampling by balloting. The entire community was enumerated using the existing primary health care (PHC) numbering system. A total of 1 250 houses were enumerated assuming each house has a mother with a child aged 1–24 months, thereby giving a sample frame of 1 250. With a minimum sample size of 418 a sampling interval of three was calculated. Starting with the first house balloted, every third house was sampled. The number of households with children between 1 and 24 months in a house was determined and if more than one household was eligible, they were all sampled independently. In houses where the household had no children between 1 and 24 months or where the mother refused to give consent or was not available, the next house was visited. In the occurrence of a household having two children within the age range of 1–24 months, the older sibling was sampled.

Data collection
A semi-structured interviewer-administered questionnaire was used to obtain information from the participants. The questionnaire was pretested in the Ogba community in Oredo LGA of Edo State. A few questions were rephrased and made easier to understand after the pretesting. The questionnaire contained questions on the sociodemographic data, health facility for antenatal and delivery services and breastfeeding practices. Four students of the Institute of Health Technology, University of Benin Teaching Hospital were trained by the researchers as assistants in the collection of data. The breastfeeding practices of the mothers were assessed making use of these indicators:

- Early initiation of breastfeeding, which is commencement of breastfeeding within one hour of delivery;
- Exclusive breastfeeding rate: proportion of children who were fed on breast milk only for the first six months of life or who were on breast milk alone at the time of survey;
- Duration of breastfeeding was obtained from the age at which the children stopped breastfeeding.

The socioeconomic class was calculated by the method of Olu-sanya et al. using the father’s occupation and mother’s level of education.

Data analysis
The data collected were checked for correctness, coded and analysed using IBM SPSS version 20 statistical software (IBM Corp, Armonk, NY, USA).

The continuous variables were summarised using means and standard deviations while categorical variables were summarised using proportions. Associations between sociodemographic characteristics and exclusive breastfeeding and timely initiation of breastfeeding were done using a chi-square test with the level of significance set at p < 0.05 at 95% confidence interval.

Ethics
Ethics clearance was obtained from the Research and Ethics Committee of the University of Benin Teaching Hospital, Benin, Nigeria (ADM/E 22/A/VOL. VII/1359). Written informed consent was obtained from each mother. The objective of the study, assurance of no harm and confidentiality and freedom to participate were clearly explained to them.

Results
A total of 418 mother and child pairs were recruited for the study. The sociodemographic characteristics of the caregivers are given in Table 1. The age of the mothers ranged from 18 to 50 years with a mean age of 33 ± 6.5 years.

Most of the mothers (68.2%) and fathers (58.2%) of the recruited children were self-employed. The mothers were mainly tailors, traders and farmers while the fathers were mainly tailors, traders, drivers and automobile mechanics. There were more unemployed mothers (8.9%) than fathers (1.4%). Those working in private establishments, and those employed in a government or private establishment in addition to owning a personal business were classified under the category of ‘others’.

The sociodemographic characteristics of the children are given in Table 2.

The median age of the children was 18 months while the range and the interquartile range were 1–24 months and 10–21 months respectively. There were slightly more male children (51.7%) than female children (48.3%). About a third of the children (35.4%) were of second birth order.
Table 3 shows the facility where the respondents had antenatal care and delivery. The proportion of mothers who had antenatal care in government hospitals (48.8%) was slightly higher than those who attended private hospitals (45.5%).

Most of the deliveries (54.8%) occurred in private hospitals. A very small proportion (2.1%) were delivered at home.

The breastfeeding practices of the respondents are given in Table 4. Less than half of the respondents (44.5%) initiated breastfeeding within one hour after birth. The duration of initiation of breastfeeding ranged from immediately after birth to as long as 14 days. The longest duration of initiation of breastfeeding, which was 14 days, was as a result of surgery performed on the mother that was complicated.

Table 3: Sociodemographic characteristics of the caregiver

| Characteristics          | Frequency (n = 418) | %   |
|--------------------------|---------------------|-----|
| Age group (years)        |                     |     |
| ≤ 20                     | 3                   | 0.7 |
| 21–30                    | 134                 | 32.1|
| 31–40                    | 218                 | 52.2|
| 41–50                    | 63                  | 15.0|
| Religion:                |                     |     |
| Christianity             | 365                 | 87.3|
| Islam                    | 44                  | 10.5|
| ATRb                     | 9                   | 2.2 |
| Marital status:          |                     |     |
| Married                  | 403                 | 96.4|
| Single                   | 4                   | 0.9 |
| Divorced                 | 2                   | 0.5 |
| Widowed                  | 9                   | 2.2 |
| Mother’s level of education: |               |     |
| No formal                | 9                   | 2.2 |
| Primary                  | 50                  | 12.0|
| Secondary                | 261                 | 62.4|
| Tertiary                 | 98                  | 23.4|
| Father’s level of education: |               |     |
| No formal                | 2                   | 0.5 |
| Primary                  | 25                  | 6.0 |
| Secondary                | 188                 | 45.0|
| Tertiary                 | 203                 | 48.5|
| Mother’s occupation:     |                     |     |
| Unemployed               | 37                  | 8.9 |
| Self-employed            | 285                 | 68.2|
| Government employed      | 76                  | 18.2|
| Others                   | 20                  | 4.7 |
| Father’s occupation:     |                     |     |
| Unemployed               | 6                   | 1.4 |
| Self-employed            | 243                 | 58.2|
| Government employed      | 150                 | 35.9|
| Others                   | 19                  | 4.5 |
| Socioeconomic class:     |                     |     |
| Low                      | 99                  | 23.7|
| Middle                   | 216                 | 51.7|
| High                     | 103                 | 24.6|

Mean (SD) age = 33.8 (6.5) years.

Table 2: Sociodemographic characteristics of the children

| Characteristics          | Frequency (n = 418) | %   |
|--------------------------|---------------------|-----|
| Age group (months)       |                     |     |
| 1–6                      | 50                  | 12.0|
| 7–12                     | 73                  | 17.5|
| 13–18                    | 101                 | 24.1|
| 19–24                    | 194                 | 46.4|
| Sex:                     |                     |     |
| Male                     | 216                 | 51.7|
| Female                   | 202                 | 48.3|
| Child’s birth order:     |                     |     |
| 1                        | 93                  | 22.2|
| 2                        | 148                 | 35.4|
| 3                        | 118                 | 28.2|
| 4                        | 43                  | 10.3|
| 5                        | 12                  | 2.9 |
| 6                        | 4                   | 1.0 |

Median (interquartile range) age = 18 (10 to 21) months.

Median (interquartile range) age = 2 (2 to 3).

Table 3: Ante-natal and delivery facilities utilised by respondents

| Options          | Frequency (n = 418) | %   |
|------------------|---------------------|-----|
| Ante-natal care: |                     |     |
| Government hospital | 204               | 48.8|
| Private hospital  | 190                 | 45.5|
| Maternity home    | 16                  | 3.8 |
| TBA               | 8                   | 1.9 |
| Delivery:         |                     |     |
| Government hospital | 115               | 27.5|
| Private hospital  | 229                 | 54.8|
| Maternity home    | 35                  | 8.4 |
| TBA               | 30                  | 7.2 |
| Home              | 9                   | 2.1 |

TBA: traditional birth attendant.

The duration of breastfeeding for most of the respondents (85.6%) was between 13 and 18 months. The mean duration of breastfeeding is 15.1 ± 2.3 months.

In total, 153 children were fed on breast milk for only the first six months, bringing the exclusive breastfeeding rate to 36.6%.

The main reason given by respondents for not breastfeeding immediately was that the baby refused to suck on the breast, which amounted to 81 cases (35%). Maternal illness was the least common reason (2.6%) proffered by respondents for not breastfeeding immediately.

A bivariate analysis of the factors associated with the practice of exclusive breastfeeding is given in Table 5. Maternal education has a significant association (p < 0.05) with exclusive breastfeeding. Mothers with tertiary level of education were more likely to practise exclusive breastfeeding in comparison with no formal, primary and secondary levels of education. There was no significant association between early initiation of breastfeeding and exclusive breastfeeding.

Factors associated with early initiation of breastfeeding are given in Table 6. Maternal age group and facility for antenatal
care were significantly associated \((p < 0.05)\) with timely initiation of breastfeeding. Respondents aged 20 years and below were more likely to initiate breastfeeding late. Mothers who had antenatal care where facilities were operated by traditional birth attendants (TBAs) were more likely to initiate breastfeeding early.

Discussion

Optimal breastfeeding of children under two years of age has the potential to prevent under-five mortality in developing countries. This study assessed the breastfeeding practices of mothers in the Edaiken community. The 36.6% prevalence rate of exclusive breastfeeding obtained is comparable to the 36% global rate, 36% in Mirzapur Upazilla, Bandaglesh,\(^1\) and 40.7% in Benin City, Nigeria.\(^9\) This is, however, low in comparison with the international recommendation of 90% coverage,\(^13\) 50% national target\(^14\) and reports from other studies.\(^15,16\) A much lower prevalence rate of 17% was reported among under-five children in the 2013 NDHS.\(^7\) Other studies within and outside Nigeria have also reported lower prevalence rates.\(^8,17,18\) Low prevalence of exclusive breastfeeding may be associated with increased incidence of childhood morbidity and mortality as it has been estimated that 90% coverage of exclusive breastfeeding will lead to a 13% reduction in under-five mortality.\(^13\) The varied prevalence of exclusive breastfeeding may be attributed to the influence of a host of sociocultural factors, which are dynamic and vary within and between countries and regions.\(^6,7\) Maternal age, occupation, marital status, work schedule, and influence of family, friends and health workers can impact positively or negatively on breastfeeding practices.\(^9,15\) This may be associated with practices such as introduction of pre-lacteal feeds,\(^16\) discarding of colostrum and early introduction of water, infant formula and complementary foods.\(^9,15\) Constraints such as refusal of breast milk by some children, inadequate lactation, health-related challenges and pain in the breast have been implicated in the discontinuation of exclusive breastfeeding.\(^8\)

In this study 31.6% and 37.6% of respondents introduced their infants to water and infant formula respectively before six months.
months of age. Various studies have similarly reported the practice of early introduction of water and infant formula. Introduction of water and infant formula leads to less intake of the more nutritious breast milk which can lead to reduced lactation, early cessation of breastfeeding and increased incidence of under-nutrition.

The significant association between the practice of exclusive breastfeeding and maternal educational status in this study is comparable with reports from studies in Sagamu, South Western Nigeria, Benin City, South Southern Nigeria, and Kigoma Region, Western Tanzania. A possible reason for this finding is that educated mothers are more likely to understand better the messages received from health talks during antenatal visits and may also have more access to information from the media and other materials promoting optimal breastfeeding practices. This finding is, however, in contrast to a study conducted in Sokoto, Northern Nigeria where there was no association between maternal education and exclusive breastfeeding.

Paternal education was, however, not associated with exclusive breastfeeding in this study, which is similar to studies in South Western Nigeria and South Southern Nigeria. This finding is not surprising considering the fact that the role of the father in breastfeeding practices is mainly supportive. This role may be highly affected by the degree of his availability, which is determined by the nature of his occupation. A study in South West Nigeria showed that 51% of husbands supported their wives to breastfeed. Some researchers have, however, reported an association between paternal education and the practice of exclusive breastfeeding.

The prevalence of early initiation of breastfeeding within one hour of birth in this study is 44.5%. This finding is comparable with the 45% prevalence in South Western Nigeria and 46% in rural Bangladesh. This is much lower than a prevalence of 87% reported in Bahir Dar city, North Western Ethiopia and 83.7% in Egypt. This difference might be the result of a relatively high knowledge of infant feeding in these studies. About 79.8% of respondents in the Egyptian study had correct knowledge of when breastfeeding should be initiated in infants while 93.7% of the participants in the Ethiopian study received infant feeding counselling. Evaluation of prepartum and postpartum counselling and knowledge of infant feeding were not done in our study. Lower rates of 37%, 35.5% and 28% were reported in Ilesa, South Western Nigeria, Benin, South Southern Nigeria and Nasarawa State, North Central Nigeria respectively. Initiation of breastfeeding within an hour of birth has been shown to reduce infection-specific neonatal mortality, and this impact was found to be independent of the effect of exclusive breastfeeding during the first month of life. Low prevalence of early initiation of breastfeeding may, therefore, render infants vulnerable to neonatal infections, especially in developing countries such as Nigeria where neonatal infections are prevalent.

The main reason for late initiation of breastfeeding in this study was the baby’s refusal to suck while bathing of the baby was the least common reason for delay. Other reasons include mother not lactating, surgical delivery, baby was sleeping, maternal and child illness. These reasons are similar to those reported in Benin City, and in Nasarawa State. A baby’s refusal to suck ranked second to tradition/culture in the study in Nasarawa State. There was no ranking of the reasons from the study in Benin. This finding underscores the need to create greater awareness of the benefits of early initiation of breastfeeding as most of the reasons for delay can be avoided. Most newborn infants will naturally suck except in conditions such as extreme prematurity, birth asphyxia, effect of drugs given to mother, developmental anomalies and illness. Other reasons such as bathing of the baby, surgical delivery and absence of lactation should not be a barrier to early initiation of breastfeeding. Absence of lactation should actually be a reason to breastfeed the baby early rather than being a barrier since early initiation will stimulate lactation in the mother.

Table 6: Factors associated with the practice of early initiation of breastfeeding by respondents

| Characteristics          | Initiation of breastfeeding | \( \chi^2 \) | \( P \) value |
|--------------------------|-----------------------------|-------------|--------------|
| Maternal age group (years): |                            |             |              |
| \( \leq 20 \)             | 0 (0)                       | 3 (100)     |              |
| 21–30                    | 71 (53)                     | 63 (47)     | 11.85        | 0.008*       |
| 31–40                    | 82 (37.6)                   | 136 (62.4)  |              |              |
| 41–50                    | 33 (52.4)                   | 30 (47.6)   |              |              |
| Marital status:          |                            |             |              |
| Married                  | 177 (43.9)                  | 226 (56.1)  |              |              |
| Single                   | 1 (25)                      | 3 (75)      | 4.96         | 0.182        |
| Divorced                 | 2 (100)                     | 0 (0)       |              |              |
| Widow                    | 6 (66.7)                    | 3 (33.3)    |              |              |
| Maternal education:      |                            |             |              |
| Informal                 | 3 (33.3)                    | 6 (66.7)    |              |              |
| Primary                  | 22 (44)                     | 28 (56)     | 1.36         | 0.714        |
| Secondary                | 121 (46.4)                  | 140 (53.6)  |              |              |
| Tertiary                 | 40 (40.8)                   | 58 (59.2)   |              |              |
| Paternal education:      |                            |             |              |
| Informal                 | 0 (0)                       | 2 (100)     |              |              |
| Primary                  | 13 (52)                     | 12 (48)     | 2.79         | 0.431        |
| Secondary                | 87 (46.3)                   | 101 (53.7)  |              |              |
| Tertiary                 | 86 (42.4)                   | 117 (57.6)  |              |              |
| Maternal occupation:     |                            |             |              |
| Unemployed               | 15 (39.5)                   | 23 (60.5)   |              |              |
| Self-employed            | 134 (47.2)                  | 150 (52.8)  | 3.02         | 0.392        |
| Government employed      | 28 (36.8)                   | 48 (63.2)   |              |              |
| Others                   | 9 (45)                      | 11 (55)     |              |              |
| Antenatal care facility: |                            |             |              |
| Government hospital      | 78 (35.1)                   | 126 (64.9)  |              |              |
| Private hospital         | 96 (50.5)                   | 94 (49.5)   | 10.83        | 0.013*       |
| Maternity home           | 5 (33.3)                    | 10 (66.7)   |              |              |
| TBA                      | 7 (77.8)                    | 2 (22.2)    |              |              |
| Delivery facility:       |                            |             |              |
| Government hospital      | 49 (42.6)                   | 66 (57.4)   |              |              |
| Private hospital         | 109 (47.6)                  | 120 (52.4)  |              |              |
| Maternity home           | 13 (37.1)                   | 22 (62.9)   | 2.52         | 0.644        |
| TBA                      | 12 (40)                     | 18 (60)     |              |              |
| Home                     | 3 (33.3)                    | 6 (66.7)    |              |              |
| Socioeconomic class:     |                            |             |              |
| Low                      | 41 (39.8)                   | 62 (60.2)   |              |              |
| Middle                   | 100 (46.3)                  | 116 (53.7)  | 1.24         | 0.543        |
| High                     | 45 (45.5)                   | 54 (54.5)   |              |              |

\( *p < 0.05 \)
Maternal age and facility utilised for antenatal care were significantly associated with early initiation of breastfeeding. Very young mothers (< 20 years) were most unlikely to initiate breastfeeding early, while accessing antenatal care with traditional birth attendants is associated with early initiation of breastfeeding. This finding is contrary to the study in Benin City where maternal education and delivery in hospital were significantly associated with early initiation of breastfeeding. Young mothers being unlikely to initiate breastfeeding early can be attributed to inexperience as such mothers might be having their first or second babies at that age. The association between antenatal care with TBAs and early initiation of breastfeeding is unexpected. It would be presumed that early initiation of breastfeeding should be practised more by those who had antenatal care in hospitals owing to the health talks offered during the antenatal visits. Possible reasons could be distraction during health talks, incomplete information concerning infant feeding practices with less emphasis on early initiation of breastfeeding, and dissociation between knowledge and practice on the part of the mothers.

The majority of the respondents (85.6%) discontinued breastfeeding at between 13 and 18 months while the mean duration of breastfeeding was 15 months. This finding is comparable with the national median duration of 18 months and another study in Nasarawa State where most of the mothers discontinued breastfeeding at between 13 and 15 months. This duration falls short of the 24 months or more recommended by WHO and UNICEF. A much lower median duration of 120 days was reported in Brazil. Breastfeeding for two years and beyond has been associated with benefits such as reduced incidences of illness, reduced mortality and improved social adjustment for the child and reduced incidence of breast cancer in the mother. Early cessation of breastfeeding is therefore detrimental to a child’s health and development. Factors that have been associated with early cessation of breastfeeding include early introduction of water and infant formula, late initiation of breastfeeding and primiparity. These factors were, however, not evaluated in this study.

Conclusion
Less than half of the mothers of children aged 1–24 months in Egor LGA practised early initiation of breastfeeding and exclusive breastfeeding. Nutritional education at the community level should be embarked upon by the Local Health Authority of Egor LGA to improve these practices.

Limitation of the study
The information on the breastfeeding practices was obtained from the caregivers’ recall of the events and may therefore be subject to recall bias. Some of the questions were rephrased to aid recall and sufficient time was given to the respondents to think in order to minimise the chances of recall bias. Hospital records were not used to verify the data.

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References
1. World Health Organization. Infant and young child feeding 2015. [cited 2015 Aug 5] Available from: http://www.who.int/mediacentre/factsheets/fs342/en/
2. Kramer MS, Chalmers B, Hodnett E, Sekvovskaya Z, Dzikovich I, Shapiro S, et al. Promotion of breastfeeding intervention trial: a randomized trial in the Republic of Belarus. JAMA. 2001;285:413–20.
3. Pan American Health Organization. Guiding principles for complementary feeding of the breast fed child. Washington, DC; 2012. [cited 2015 Aug 21]. Available from www.who.int/nutrition/publications/guiding_principles_complemenary_feeding_breastfed.pdf
4. World Health Organization. Exclusive breastfeeding for optimal growth, development and health of infants 2018. [cited 2018 Mar 21]. Available from: http://www.who.int/elema/itles/exclusive/breastfeeding/en/
5. Black RE, Allen LH, Bhutta ZA, de Onis M, Ezzati M, et al. Maternal and child undernutrition: global and regional exposures and health consequences. Lancet. 2008;371:243–60.
6. Sika-Bright S. Socio-cultural factors influencing infant feeding practices of mothers attending welfare clinic in Cape Coast 2011. [cited 2015 Oct 8]. Available from: http://uap2011.princeton.edu/papers/110302
7. National Population Commission (NPopC) [Nigeria] and ICF International. Nigeria demographic and health survey 2013. Abuja, Nigeria, and Rockville, Maryland, USA: NPopC and ICF International; 2014.
8. Agunbiade OM, Ogugueye OV. Constraints to exclusive breastfeeding practice among breastfeeding mothers in Southwest Nigeria: implications for scaling up. Int Breastfeed J. 2012;7:5–14.
9. Akpan UJ, Ibadin MO, Abiodun PO. Breastfeeding practices in early infancy in Benin City, Nigeria. Niger J Paed. 2015;42(2):126–31.
10. Trussell J, Grummer-Strawn L, Rodriguez G, Vanlarding M. Trends and differentials in breastfeeding behaviour: evidence from the WFS and DHS. Pop Stud. 1992;46:285–307.
11. Olusanya O, Okpere E, Ezimokhal M. The importance of social class in voluntary fertility control in a developing country. W Afr J Med. 1985;4:205–11.
12. Joshi PC, Angendembu MR, Das SK, Ahmed S, Faruque ASG, Ahmed T. Prevalence of exclusive breastfeeding and associated factors among mothers in rural Bangladesh: a cross-sectional study. Int Breastfeed J. 2014;9:7. [cited 2016 Jan 14] Available from: http://creativecommons.org/licenses/by/2.0
13. Jones G, Steketee WR, Black ER, et al. How many child deaths can we prevent this year? Lancet. 2003;362:65–71.
14. Federal Ministry of Health/UNICEF. Health sector component of national food and nutrition policy 2014: national strategic plan of action for nutrition 2014–2019. Available from: http://www.health.gov.ng/doc/NSPAN.pdf
15. Sholeye OO, Abosede OA, Salako AA. Exclusive breastfeeding and its associated factors among mothers in Sagamu, Southwest Nigeria. J Health Sci. 2015;52(2):25–31.
16. Nikala TE, Musya SE. Prevalence and predictors of exclusive breastfeeding among women in Kigoma region, Western Tanzania: a community based cross-sectional study. Int Breastfeed J. 2011;6:17–23.
17. Akeredolu A, Osisanyo JO, Seriki-Mosadolorun JS, Okorofar U. Mothers’ nutritional knowledge, infant feeding practices and nutritional status of children (0–24 months) in Lagos State, Nigeria. Eur J Nutr Food Safety. 2014;4(4):364–74.
18. Saleh F, Ara F, Hoque A, Alam S. Complementary feeding practices among mothers in selected slums of Dhaka City: a descriptive study. J Health Popul Nutr. 2014;32(1):89–96.
19. Awogbenja M, Dehinde U, Fabian U. Feeding practices and nutritional status of under-five children in Nasarawa State, Nigeria. PAT. 2010;6(1):23–35. [cited 2015 Sep 24]. Available from: www.patsukujournal.net/currentissue
20. Umar AS, Oshe MO, Breastfeeding and weaning practices in an Urban Slum, North Western Nigeria. Int J Trop Dis Health. 2014;3(2):114–125.
21. Seid MA, Melkie Edris Yesuf EM, Koye NG. Prevalence of exclusive breastfeeding practices and associated factors among mothers in Bahir Dar city, Northwest Ethiopia: a community based cross-sectional study. Int Breastfeed J. 2013;8:14. [cited 2016 Jan 10]. Available from: http://www.internationalbreastfeedingjournal.com/content/8/1/14
22. Mohammed ES, Ghazawy ER, Hassan EE. Knowledge, attitude, and practices of breastfeeding and weaning among mothers of children up to 2 years old in a rural area in El-Minia Governorate, Egypt. J Family Med Prim Care. 2014;3(2):136–140. [cited 2018 Mar 5]. Available from: doi:10.4103/2249-4863.137639.

23. Ogunlesi T, Dedeke O, Okeniyi J, Oyedeji G. Infant and toddler feeding practices in the baby friendly initiative (BFI) Era In Ilesa, Nigeria. Int J Nutr Wellness. 2004;1(2):1–5. [cited 2016 Mar 14]. Available from: https://print.ispub.com/api/0/ispub-article/9801

24. Edmond KM, Kirkwood BR, Amenga-Etego S, Owusu-Agyei S, Hurt LS. Effect of early infant feeding practices on infection-specific neonatal mortality: an investigation of the causal links with observational data from rural Ghana. Am J Clin Nutr. 2007;86:1126–1131.

25. Takahashi K, Ganchimeg T, Ota E, Vogel JP, Souza JP, Laopaiboon M, et al. Prevalence of early initiation of breastfeeding and determinants of delayed initiation of breastfeeding: secondary analysis of the WHO Global Survey. Sci Rep. 2017;7:44868. doi:10.1038/srep44868.

26. Sadoh AE, Sadoh WE, Oniyele P. Breastfeeding practices among medical women in Nigeria. Nig Med J. 2011;52(1): 7–12.

27. Kearns AD, Castro MC, Lourenço BH, Augusto RA, et al. Factors associated with age at breastfeeding cessation in Amazonian infants: applying a proximal–distal framework. Matern Child Health J. 2016;20(7):1539–48. [cited 2018 Mar 5]. Available from. https://doi.org/10.1007/s10995-016-1953-9.

28. American Academy of Family Physicians. Breastfeeding, family physicians supporting. (Position Paper). 2014. [cited 2016 Mar 14]. Available from: https://www.aafp.org/about/policies/all/breastfeeding-support.html

29. Bautista LE. Duration of maternal breastfeeding in the Dominican Republic. 1996. [cited 2016 Mar 24]. Available from: http://doi.org/10.1590/S1020-49891997000200003

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