

Barriers to Exclusive Breastfeeding Practice among Rural and Urban Mothers in Nigeria: A Systematic Review

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Abstract

Introduction: There have been several policies backed up by improved national legislations designed to promote exclusive breastfeeding in the country, however the practice is still low and is actually declining. Therefore, there is a need to synthesize the barriers to this practice in order to serve as a resource for reviewing and strengthening the existing policies. The aim of this study was to review and synthesize the barriers to exclusive breastfeeding practice among rural and urban mothers in Nigeria.

Methods: Databases such as PubMed and African Journal Online were searched with keywords and synonyms related to the topic. Similar concepts were thereafter organized into themes through reciprocal translations followed by reading and interpretations.

Results: The key barriers to exclusive breastfeeding reported in the study include wrong perceptions and practices, low parental socio-economic status and poor spousal support. The identified gaps in the existing knowledge were inadequate support for less reported breastfeeding problems such as sore nipples, inadequate lactation rooms and creches in public and private workplaces, and inadequate enlightenment campaigns about exclusive breastfeeding practice in the country.

Conclusion: This study has reviewed and synthesized the barriers to exclusive breastfeeding among rural and urban mothers across the six geopolitical zones of the country. Consequently, it advocates, among other recommendations, for the full implementation of the National Policy on Food and Nutrition and improvement in the quality of services rendered in the antenatal and postnatal clinics across the country through regular training of health workers. Finally, it encourages the funding of studies into complaints of fatigue in the course of adopting exclusive breastfeeding.

Keywords: Exclusive Breastfeeding, National Agency for Food and Drug Administration and Control, National Policy on Food and Nutrition, Preferred Reporting Items for Systematic Review and Meta-analysis, International Prospective Register of Systematic Reviews, World Health Organization

Introduction

Exclusive Breastfeeding (EBF) is a practice in which nursing mothers offer their infants only breast milk for six months. According to the World Health Organization (WHO),¹ no other food substances nor water should be given except oral rehydration solutions, vitamin syrups or medicine whenever prescribed by the health personnel. After this initial period of exclusivity, however, suitable complementary foods should be provided while breastfeeding continues up to the age of two and beyond. Although there has been a marginal increase from 17% in 2013 to 25% in 2017 in the exclusive breastfeeding rate in the country,² this is short of the WHO global target of 50%. Moreover, the country still has one of the highest mortality rates of infants (128/1000) in the world.³ This lends support

to findings from previous studies that EBF practice in the country is low and is actually declining and is considered unpopular even among health workers.^{4,5} Whereas there have been several policies backed up by improved national legislations that were designed to enhance EBF in the country,⁶ it's awareness and practice across the six geopolitical zones is low. Also, recent research has only considered the challenges to EBF practice in some sections of the country and not nationwide.

Therefore, there is a need to study and synthesize the barriers to EBF practice among nursing mothers in rural and urban areas of Nigeria with a view to providing a handy resource for reviewing, strengthening, and making existing policies more effective at tackling

this problem across all the geopolitical zones of the country. In order for evidence to inform practice, researchers had long noted the need to investigate before attempting to change this pattern of suboptimal exclusive breastfeeding practice in Nigeria.⁷

Background

There is a consensus among researchers that breast milk contains adequate nourishment for infants to grow and develop. There are many benefits derivable from exclusive breastfeeding for infants, nursing mothers, and even the society. The practice reduces the risk of major childhood diseases such as diarrhea, pneumonia, and malocclusions.⁸ It also improves intelligence quotient, limits childhood obesity and also diabetes. Mothers who are known to exclusively breastfeed their babies also have lower incidence of type II diabetes, endometrial, ovarian and breast cancers as well as enhanced psychosocial bonding with their child.⁹

Besides, an estimate of US \$341 Billion could be saved annually in the global economy in terms of loss to life, productivity and costs to health systems with exclusive breastfeeding practice.¹⁰ In addition, it is an environmentally friendly practice that promotes cleaner communities free of industrial pollution.

In realization of the immense benefits of EBF to human health, a good number of programs have been initiated to scale up the practice worldwide. Nigeria is signatory to the International Code of Marketing Breast Milk Substitutes which is a policy designed to protect, promote, and support breastfeeding practice and was adopted by the World Health Assembly in 1981.^{11,12} Nigeria has saddled the National Agency for Food and Drug Administration and Control (NAFDAC) with the implementation and enforcement of the code in the country.¹³ This country has also inaugurated policies and programs such as the Baby Friendly Hospital Initiative (BFHI), the National Policy on Food and Nutrition, and the National Policy on Infant and Young Child Feeding, all aimed at boosting EBF practice in the country.⁶

Nigeria, through specific provisions in the National Policy on Food and Nutrition, offers maternity protection for nursing mothers working in public and private sectors. Also, it promotes, protects, and supports early initiation of breastfeeding within thirty minutes of childbirth and exclusive breastfeeding for the first six months which should be continued with the addition of

adequate complementary foods up to the age of two. It also ensures the establishment of creches in work places having more than 10 women. In addition, it provides for the enforcement of the existing regulation on maternity leave at all levels. The Federal Government has also approved 18 weeks while some states like Lagos, Enugu and Ekiti have considered 26 weeks of paid maternity leave for working nursing mothers.

Objectives

The objective of this study was to review and synthesize relevant evidence from open access databases and journals for the barriers to exclusive breastfeeding practice among rural and urban mothers in Nigeria.

Methods

The PROSPERO registration number for this review is CRD42020155958.

The method adopted for reporting this study was in line with the Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) guideline. The PICO tool served as a template for developing the eligibility criteria.

Eligibility Criteria

(P) Population: Rural and urban mothers.

(PI) Phenomenon of Interest: EBF practice.

(Co) Context: Nigeria.

Inclusion Criteria

1. Studies that recruited breastfeeding mothers or mothers whose children were less than five years of age.
2. Studies that were conducted in any part of Nigeria.
3. Studies that were cross-sectional surveys, random controlled trials, case control studies and cohort studies.
4. Studies that were conducted in English Language.
5. Studies available in full text.

Exclusion Criteria

1. Inclusion of participants who were not nursing mothers.
2. Inclusion of mothers whose children were older than five years of age.
3. Studies that considered EBF in other health conditions such as HIV.

Information Sources

Keywords and synonyms related to this topic formed the search strategy which was varied appropriately for each database and applied up to the 3rd of October, 2019. There were no restrictions on the date of publication

but paper selections were limited to those published in English Language and available in full text.

Databases/Journals

- MEDLINE via Pubmed
- Tripdatabase via Trip
- Biomed Central via International Breastfeeding Journal

- African Journal Online
- Hindawi
- Google Scholars
- References of selected papers were searched.

Search Strategy:

Table 1. A Sample of the Full Search Strategy used on MEDLINE via the Pubmed Interface

Keywords	Number of Papers
1 (exclusive w breastfeeding or suck* or nurse* or wet w nurse* or lactate or nourish or give w suck or breast w milk or feeding, breast/ or breastfeeding/ or breast w feeding, exclusive/ or exclusive w breast w feeding/ or breast, exclusive/ or exclusive w breastfeeding/)	658,199
2 (urban w population/ or urban or cities)	329,325
3 rural	179,391
4 (mothers/ or mother)	225,398
5 ("Federal Republic of Nigeria"/ or Nigeria)	4,979
6 1 and 2 and 3 and 4 and 5	32

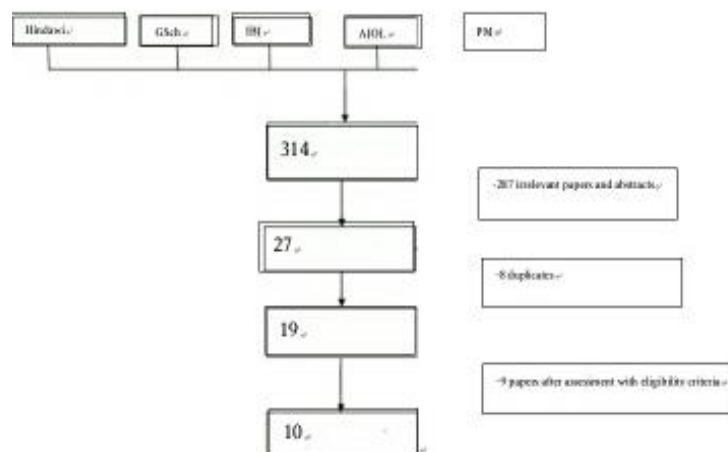


Figure 1. The Flow Diagram for the Review

Study Records:

Records were managed via Microsoft Office Suite Software (WPS Office)

Selection Process:

The information sources were searched for papers and the results were thereafter assessed by two reviewers (EK and AT) for inclusion into the study with the use of Abstrackr (the interactive machine learning system).¹⁴ A paper with full text availability was reviewed and included when it met the eligibility criteria. The two reviewers compared and came to a consensus. Any disagreement was further discussed until consensus was reached.

Data Items:

The following data were extracted from the selected papers: author, title, year, study design, and key findings. One reviewer (AT) extracted data while the other (EK) checked for accuracy. Any disagreement was discussed until consensus was reached.

Risk of Bias in Individual Studies:

The risk of bias in selected papers for the study was assessed using the Newcastle-Ottawa scale adapted for evaluating cross-sectional studies. Assessments were at the study and outcome levels which examined the following characteristics: stated aim, subject selection, comparability and description of the statistical test

used. The first reviewer (AT) independently assessed the risk of bias of the papers while the other (EK) checked for accuracy and clarity. Any disagreement was discussed until consensus was reached.

Data:

Tabulation was the format used for presenting data for this study. This enabled a graphical comparison

and sub grouping of the data.

Synthesis:

This study adapted a meta-synthesis approach. Related concepts from selected papers were organized into reciprocal translation followed by a thorough reading and interpretation that produced textual synthesis of the theme.

Table 2. Characteristics of the Reviewed Papers

Author (Year)	Title	Study Type/ Sample size	Place	Key Barriers	Quality score. Modified Newcastle- Ottawa scale
Omuemu, V.O (2019) ²⁹	Assessment of Breastfeeding Knowledge and Practices Among Working Mothers in the Federal Capital Territory, Nigeria	Cross Sectional Study/ 360	Abuja- urban	Poor spousal support, no paid maternity leave, lack of creches, short maternity leave, lack of part-time working conditions, lack of breastfeeding breaks, long working hours	14
Balogun, M.R. (2017) ³⁰	Knowledge, Attitude, and Practice of Breastfeeding: A Comparative Study of Mothers in Urban and Rural Communities of Lagos, Southwest Nigeria	Comparative Cross Sectional Study/ 248	Lagos- urban and rural	Work resumption, Breastfeeding seen as old fashioned and embarrassing in public. Both rural and urban respondents have a fair attitude to breastfeeding but the practice is low among urban respondents	13
Ugboaja, J.O. (2013) ³¹	Barriers to Postnatal Care and Exclusive Breastfeeding Among Urban Women in Southeast Nigeria	Cross Sectional Survey/ 400	Nnewi- urban	Stress, mother's refusal, feeling that EBF is not necessary, time constraint, husband's refusal	10
Joseph, F.I. (2019) ³²	A Qualitative Exploration of the Sociocultural Determinants of Exclusive Breastfeeding Practice Among Rural Mothers in Northwest Nigeria	Cross Sectional Survey/ 20	Katsina- rural	Traditional practices; husbands, grandmothers, and traditional birth attendants influencing decision about infant feeding	10
Adewuyi, E.O. (2017) ³³	Rural-urban Differences on the Rates and Factors Associated with Early Initiation of Breastfeeding in Nigeria: Further Analysis of the Nigeria Demographic and Health Survey, 2013	Cross Sectional Survey/ 11,851	Nigeria- rural and urban	Birth order, birth size, facility delivery, cesarean section	10

Ihudiebube-Splendor, N. (2019) ³⁴	Exclusive Breastfeeding Knowledge, Intention to Practice and Predictors Among Primiparous Women in Enugu, Southeast Nigeria	Descriptive Cross Sectional Survey/ 201	Enugu- urban	Maternal age, low educational attainment and poor sources of information about EBF	8
Agbo, H. A. (2013) ³⁵	Barriers and Facilitators of the Practice of Exclusive Breastfeeding Among Working Class Mothers: A Study of Female Resident Doctors in Tertiary Health Institutions in Plateau State	Descriptive Cross Sectional Study/ 47	Jos- urban	Work resumption, inadequate lactation, fear of contamination of expressed breast milk, unstable electricity supply	7
Ella, R.F. (2016) ³⁶	Factors Affecting Exclusive Breastfeeding Practice in Rural Communities of Cross River State, Nigeria	Descriptive Cross Sectional Survey/ 336	Boki- semi Urban	Job conditions, sore nipple, stress, inadequate breast milk	7
Osinusi, K. (1987) ³⁷	A Study of the Pattern of Breastfeeding in Ibadan, Nigeria	Comparative Cross Sectional Survey/ 950	Ibadan- rural and urban	Ignorance about the benefits of EBF	6
Tyndal, J.A. (2016) ³⁸	Knowledge, Attitude, and Practice on Exclusive Breastfeeding in Afamawa, Nigeria	Cross Sectional Community Survey/ 250	Yola- rural and urban	False perceptions about EBF: saggy breasts, colostrum is a stale milk, breast milk lacks sufficient nutrients, expressed milk is contaminated milk, EBF not suitable for working mothers	5

Discussion

This review has shown that a good number of mothers are unaware of the benefits of EBF hence their reluctance to adopt to the practice. Their incorrect ideas about the practice is a serious barrier to early initiation of breastfeeding within the first hours of birth as recommended by the WHO.¹ Thus, babies are denied essential nutrients and hormones needed to strengthen their immune systems because of wrongful beliefs such as the views that colostrum is a stale milk, it lacks sufficient nutrients, and food supplements are the ideal food for infants. Likewise, many children are not initiated to the breast milk days after birth because of cultural practices rooted in beliefs that consider colostrum as an impure milk that must be expressed and thrown away. This agrees with the findings from studies from South Asia where such misconceptions of colostrum have been established as barriers to timely breastfeeding of babies.¹⁵

Low Parental Socio-economic Status: One factor that could determine to a large extent whether a baby would be exclusively breastfed or not is the socio-economic status of it's parents. Because of the rising cost of living and the resultant need for women to take up careers as paid workers, an increasing number of babies are not been exclusively breastfed. This review has shown that the pressure to resume work after delivery with no or very short maternity leave, lack of creches or lactation rooms at various workplaces across the country, and irregular electricity supply that could support pumping and storage of breast milk are obstacles to exclusive breastfeeding practice. This finding is supported by evidence from a study which sought to evaluate the effectiveness of workplace lactation programs in the United States on breastfeeding practices which has shown that lactation rooms, social support and services such as the

provision of breast pumps increased breastfeeding initiation, duration, and exclusivity.¹⁶

Besides, the educational attainment of the parents has been found to be a significant facilitator of exclusive breastfeeding practice in the country. Although mothers in urban communities have more access to means of social enlightenment such as the radio, television, newspapers and the internet, the practice is lower among this group compared to mothers residing in rural areas. This is important because the availability of helpful health information alone is not enough in order to be able to understand and practice it. Even though studies conducted in Rafsanjan, Iran to determine the relationship between maternal health literacy and their breastfeeding pattern did not find any statistically significant association due to overriding personal and social factors,¹⁷ the outcome of another study in Rawalpindi, Pakistan, however, reported that mothers with higher levels of education and those who had received guidelines on breastfeeding demonstrated improved knowledge and breastfeeding practices.¹⁸ Thus, low educational attainment of the parents could be a barrier to the adoption of EBF practice.

Poor Spousal Support in EBF Practice: This review also highlights inadequate spousal support as an important barrier to EBF practice in the country. Whereas the domain of breast milk production resides with mothers, support from spouses is a necessary ingredient for making EBF practice achievable. According to a study,¹⁹ such positive roles include involvement in decision-making, knowledge and positive attitude, emotional and practical support for the practice. But when such support is insufficient or out rightly withheld, nursing mothers could easily become overwhelmed with domestic and official duties and would not be able to EBF their babies. This finding is consistent with the outcome of the study in Thailand which observed that EBF may last for a short period of time in the absence of family support, especially the husband, to assist in childcare and to lessen the burden of housework.²⁰

Breastfeeding Problems and Delivery by Cesarean Section: Breastfeeding problems and delivery by Cesarean section are among the barriers to EBF reported by this study. Sore nipples and inadequate milk production are

reasons why several mothers are unwilling to EBF their babies.

Besides, delivery by cesarean section has been a major obstacle to initiating breastfeeding within an hour of birth and to practice EBF optimally. Similar findings have been reported from several studies which showed that sore nipples, inadequate milk production and Cesarean delivery were negatively associated with feeding initiation and exclusivity.^{21,22}

Stress: The tiring nature of breastfeeding has also been reported in this review as a barrier to EBF practice. Some mothers found the activity stressful. Similar findings have also been observed in mothers in a study conducted in Tanzania.²³

Saggy Breasts: The idea that breastfeeding could lead to saggy breasts and thus would make a woman less attractive to her husband is an obstacle to the adoption of EBF by several young mothers in Nigeria. There is a near universality of this misconception serving as an obstacle to exclusive breastfeeding practice because several other studies in different settings around the world have identified it as a barrier.^{24,25,26,27,28}

Gaps in Existing Knowledge:

- Inadequate support for less reported breastfeeding problems such as lactational amenorrhoea and sore nipples.
- Inadequate lactation rooms and creches in public and private workplaces in the country.
- Inadequate enlightenment campaigns about exclusive breastfeeding practice.
- Little research papers on why some mothers experience fatigue in the course of adopting exclusive breastfeeding practice.

Conclusion

This paper has reviewed the barriers to EBF practice among rural and urban mothers in Nigeria. It reported key obstacles to the practice in the country to include wrong perceptions and practices, low parental socio-economic status and poor spousal support. Others are breastfeeding problems and delivery by cesarean section, stress associated with EBF and fear of developing saggy breasts.

Moreover, the following have been recommended for achieving optimum EBF practice among rural and

urban mothers in Nigeria: the problems of the full implementation of the National Policy on Food and Nutrition, namely poor coordination, ineffective monitoring, and inadequate funding should be addressed. The quality of services provided in the antenatal and postnatal clinics across the country should be strengthened through regular training of health workers. The level of literacy among adults in the country should be boosted by the provision of more centres for adult literacy classes.

Finally, funds should be made available to study complaints of fatigue by some nursing mothers in the course of the adoption of EBF practice in the country.

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