



## Effect of Educational Intervention on the Knowledge and Attitude of Pregnant Women Towards Practice of Exclusive Breastfeeding in General Hospital Iju Itaogbolu, Ondo State, Nigeria

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### Abstract

**Background:** Given the countless benefits of exclusive breastfeeding to mothers and infants, the World Health Organization (WHO) recommends exclusive breastfeeding (EBF) for the first six months of life. However, the prevalence of exclusive breastfeeding is still not at the acceptable level most especially in the developing countries. There is much interest in the effectiveness of exclusive breastfeeding educational interventions on knowledge and attitude of pregnant women.

**Aim:** This study aimed to assess the effect of an educational intervention on the knowledge and attitude of pregnant women towards exclusive breastfeeding in Iju Itaogbolu, Akure Ondo State.

**Method/Design:** A cross sectional descriptive study was conducted on 40 pregnant women with a singleton pregnancy in their third trimester. The pregnant women assigned to the intervention were attending antenatal care at the hospital. The designed educational content consisted of topics which include the importance of exclusive breastfeeding, skin-to-skin contact, colostrum, correct attachment, rooming-in, feeding on demand and the risks of not exclusively breastfeeding.

**Results:** The participants' exclusive breastfeeding knowledge and attitude was poor prior to intervention but this improves after educational intervention. The subtotal knowledge scores showed a statistically significant improvement immediately after the intervention. The median total attitude percent score was 80 (74.1–83.5) and significantly improved immediately after the intervention. There was a significant difference in the knowledge before and after intervention  $P=0,000$ . However, the no significant difference between knowledge and decision to practice exclusive breastfeeding.

**Conclusion:** It is concluded that this present study supports the effect of intervention during pregnancy on exclusive breastfeeding, the intervention should therefore be extended to the intrapartum and postpartum period to influence mothers attitude towards practice of exclusive breastfeeding.

**Keywords:** Health Educational Intervention; Exclusive Breastfeeding; Knowledge; Attitude; Practice

## Introduction

“Breastfeeding saves life” and “breast is best” are well-known slogans for physicians and women. Putting the newborn to the breast to nurse is now considered “normative” in the world with majority of women doing so [1]. Unfortunately, exclusive breastfeeding as a way to continue to feed infants for the first few months of life is not yet normative. Larger percentage of women are yet to choose exclusive breastfeeding as long as recommended by health experts [2] and this may give rise to an opportunity missed to improve infant health as the practice of exclusive breastfeeding offers several benefits for the health of infants and their mothers [3] as well as considerable potential savings to health services [4]. Breastfeeding is the healthiest, simplest and least expensive means of meeting the nutritional needs of newborns and infants [5]. The constituents of breast milk are all essential nutrients such as carbohydrates, essential fats, proteins, minerals, and immunological factors required for the optimal growth and development of infants; hence, it is the ideal meal for both newborns and infants [5]. Hence, the World Health Organization (WHO), recommended breastfeeding as the main form of feeding for babies and that infants are exclusively breastfed for at least 6 months, that is, infants receive only breast milk from their mothers or a wet nurse, or expressed breast milk, and no other liquids or solids, with the exception of oral rehydration solution, drops or syrups consisting of vitamins, minerals, supplements or medicines in the first 6 months after birth.

Compared to complimentary food and drinks, exclusive breastfeeding has better returns for immediate and future child health outcomes. Several beneficial effects have been linked with appropriate and exclusive breastfeeding practices in babies and their mothers. Some of the benefits of exclusive breastfeeding in infants includes protection against gastrointestinal and respiratory diseases with an impact on reducing child mortality [6] as well as against chronic diseases such as type II diabetes and obesity [7] and helps in cognitive development [7]. Exclusive breastfeeding also improves motor and mental development in babies and protects them against conditions like asthma, sudden infant death syndrome (SIDS) and long term chronic disease [8], among many other benefits.

Breastfeeding and its exclusivity is critical to the survival of newborns and infants [9]. Despite evidence of its benefits,

suboptimal breastfeeding practices continue to undermine the achievement of global maternal and child health goals [10]. Exclusive breastfeeding in the first six months of life and continued breastfeeding from 6-11 months, has shown to be the single most effective preventive intervention for reducing child mortality, with the potential of saving 1.3 million lives worldwide each year [11]. Infact, according to [12], if 90% of the new-borns globally were breastfed exclusively for 6 months, this would prevent several maternal or child deaths, and save an enormous amount in medical costs.

In spite of the vast evidences associated with the benefits of exclusive breastfeeding on the health status of infants, the rate of exclusive breastfeeding continues to decrease both in developed and developing countries. With the global estimation rate of exclusive breastfeeding of infants under 6 months of age still at about 40% as shown by UNICEF, World Health Organisation (WHO) and the World Bank and continued breastfeeding rate dropping to 46% at two years [13] with the developing countries reporting an exclusive breastfeeding prevalence of 36% among infants younger than 6 months [14], this unfortunately is a reality that is far from that recommended by the World Health Organization (WHO), which has established an exclusive breastfeeding prevalence goal of 50% by 2025. In Nigeria, breastfeeding rate have not been optimal, although breastfeeding initiation rates have increased because of breastfeeding promotion efforts but the proportion of infants who are exclusively breastfed at six months after birth has increased at a much slower rate compared to that of infants who receive mixed feedings [15].

## Statement of problem and justification of study

Breastfeeding is associated with health benefits for the infant and is therefore important to support; moreover, the immediate consequence of poor nutrition during 0–6 months of age leads to morbidity, mortality, and delayed mental and motor development. Despite the benefits of exclusive breastfeeding for infants and mothers been well documented and new evidences about breastfeeding benefits continuing to emerge from scientific community [16], exclusive breastfeeding practices have not been widespread in the developing world, and increase on the global level is still very modest with much room for improvement. In Nigeria, according to the National Population Commission 2013

Demographic and Health Survey, almost all children are breastfed, however, the rate of exclusive breastfeeding is low and declining from 28% in 1999 to 17% in 2013. The rate of breastfeeding initiation within the first hour of delivery is equally low (38%) [17].

Breastfeeding is a natural act as well as a learned behaviour. Unfortunately, many mothers and newborns do not receive the help they need to initiate breastfeeding within one hour and to practice exclusive breastfeeding during the first six months of infants' life. All mothers can adequately and appropriately breastfeed when they have accurate information, skilled practical help and support through their families, communities and healthcare systems. The practical advice can build mothers' confidence, improve feeding technique and resolve breastfeeding problems, in turn prevents breast condition like sores nipples and mastitis which usually arise due to lack of correct breastfeeding techniques. Lack of confidence in mothers' ability to breastfeed, problems with the infant latching, breast engorgement, perceptions of insufficient milk supply, and lack of individualised counselling in the antenatal period and early postpartum period are some of the factors that reduced breastfeeding rate. Some of these problem can be overcome if the woman is adequately informed during the antenatal period about the proper technique [18]. Therefore, this study is designed to examine the effect of educational intervention on knowledge and attitude of pregnant women towards exclusive breastfeeding in General Hospital Iju-Itaogbolu, Ondo State.

### Objectives of the study

- To assess the baseline knowledge and attitudes of pregnant women towards exclusive breastfeeding in General Hospital, Iju Itaogbolu Ondo State.
- To assess the effect of a breastfeeding educational intervention on knowledge of pregnant women on exclusive breastfeeding.
- To measure the effect of a breastfeeding educational intervention on the exclusive breastfeeding-related attitude of pregnant women in Iju-itaogbolu.

### Hypotheses

- There is no significant difference between knowledge before and after educational intervention
- There is significant difference between knowledge and practice of exclusive breastfeeding before and after educational intervention

- There is no relationship between level of education and decision to practice exclusive breastfeeding before and after educational intervention.

## Methods and Materials

### Study population

The target population comprises of all pregnant women, ages 18-40 with a singleton pregnancy as per their vital statistics in General Hospital, Iju Itaogbolu, Akure Ondo State.

### Design

A quasi experimental pretest-posttest research design was used in assessing the effect of educational intervention on knowledge and attitude towards practice of exclusive breastfeeding among pregnant women in General Hospital Iju Itaogbolu, Ondo state, Nigeria. A cross-sectional descriptive study is a type of observational research that analyzes data of variables collected at one given point in time across a sample population and it assess how frequently, widely, or severely the variable of interest occurs throughout a specific demographic.

### Sampling size

Using Lwanga and Lemeshow (1991) formula for sample size determination in Health studies

$$n = \frac{Z^2 Pq}{d^2}$$

n = Sample size

Z = Standard normal deviation which corresponds to the 95% confidence level (1.96)

d = Degree of accuracy desired (0.1)

Per p = Proportion of pregnant women (35%) = 0.35

Therefore,

$$n = \frac{(1.96)^2 \times (0.35) \times (0.35)}{(0.1)^2}$$

$$n = \frac{3.8416 \times 0.35 \times 0.35}{0.01}$$

n = 47.06.

Hence n = 48 respondents. In order to cater for bias of some respondents and have an easily manageable number, 50 respondents were involved in the study.

### Sampling procedure

The respondents will be selected by random sampling technique and purposive sampling. All pregnant women attending antenatal will be identified by reviewing the antenatal care logbook. The names of the pregnant women will be written on pieces of paper after which folded and placed in a box. The small pieces of paper will be thoroughly mixed and the required numbers of respondents obtained by picking one paper from the box and recording that respondent without replacing the paper back into the box and then continued mixing thoroughly before picking another paper until the required number of respondents will be attained.

### Instrument for data collection

The data collection instrument for this study was a semi-structured questionnaire that will be administered to respondents with both open and closed ended questions. This study will not use an existing questionnaire but the questionnaire will be developed by the researcher from scratch. The questionnaire comprised of three sections. Section A covers demographic characteristics of respondents, section B cover respondent's knowledge of exclusive breastfeeding and this consists of 21 questions that was divided into three sections. The questions are scored as one when answered correctly or zero when answered incorrectly. The total score of the scale will range from 0 to 21 points, with a higher score indicating a higher degree of maternal exclusive breastfeeding knowledge. The first section contains 8 questions relating to the benefits of exclusive breastfeeding for the infant, the second section consist of 6 questions about the benefits of exclusive breastfeeding for the mother while the third section include 7 questions recommended by WHO and UNICEF. Section C is the part of the questionnaire that contains the mother's attitude, this was measured using the Iowa Infant Feeding Attitude Scale (IIFAS). IIFAS was developed by Mora and Russell (1999) for assessment of mothers' attitude toward breastfeeding. IIFAS is a valid and reliable analytical tool with Cronbach's alpha ranging from 0.85 to 0.86.

### Method of data collection

The principal researcher and research assistant collected data using questionnaire. The data collection process begin by establishing a preliminary rapport with the health director of the General Hospital Iju Itaogbolu, Akure Ondo State, where the data

collection will take place. With the help of one trained assistant, data collection from the respondents will last for 4 weeks, the first 2 weeks for the collection of data before educating the pregnant women and the second 2 weeks after educating them. The duration for the data collection was agreed upon with the staff of the health facility to ensure that their daily job related services is not disrupted.

### Intervention

The intervention in this study will consist of printed educational breastfeeding booklet. The breastfeeding booklet will contain information from session three ("Promote breastfeeding during pregnancy") of the United Nations Children's Fund (UNICEF)/WHO "Baby-friendly Hospital Initiative" 20-hr course for maternity staff (United Nations Children's Fund [UNICEF] and WHO, 2006). Topics will include the importance of exclusive breastfeeding, skin-to-skin contact, colostrum, correct attachment (with illustrations), rooming-in, feeding on demand, breastfeeding after 6 months with the introduction of other foods, how to recognize if the baby is getting enough milk and the risks of not breastfeeding, including costs and environmental impact. The breastfeeding booklet will also include coloured images showing breastfeeding positions.

### Data analysis

The data collected was analyzed quantitatively by using percentages, means and standard deviation and will be presented using tables, frequency distributions and charts to examine the general distribution of respondents as contained in each variable. Inferential statistics will also be used to test for the hypotheses and relationship between variables by computing it using Statistical Package for Social Sciences (SPSS) version 21 at a significance level of 0.05.

### Ethical consideration

The study followed the ethical principles guiding the use of human participants in research. A written permission and introductory letter to conduct the study was sought and obtained from the department of Nursing Science, National Open University of Nigeria, Akure Study Centre stating the intent of the study and presented to the Chief Medical Director General Hospital, Iju Itaogbolu Local Government Area of Ondo State. The rights and interests, values, cultures and confidentiality of respondents as well as those of the public was observed. Respondents was informed of the purpose of research and their consent was sought before proceeding with the interviews while those who opted out was not be involved in the study.

Results and Discussion

Variables		Frequency (N = 50)	Percent (%)
Age (in years)	18-25	28	56.0
	26-32	14	28.0
	33-40	8	16.0
Level of education	Primary	20	40.0
	Secondary	22	44.0
	University	8	16.0
Employment status	Employed	15	30.0
	Housewife	35	70.0
Gravida	Primigravida	14	28.0
	Multigravida	36	72.0
Family type	Nuclear	30	60.0
	Extended	20	40.0

Table 1: Socio-Demographic Data of the Respondents.

In table 2, the results of participants knowledge before educational intervention indicated that higher level of maternal knowledge (21 knowledge items) before intervention were significantly lower 36(24.0%) compared with the low level of maternal knowledge 114 (76.0%). The results of participants knowledge after educational intervention and it was indicated that higher level of maternal knowledge (21 knowledge items) intervention was significantly higher (136, 90.6%) compared with the low level of maternal knowledge (14, 89.4%).

Table 1 shows the sociodemographic analysis of the participants. It indicated that 28(56.0%) were between 18 and 25 years old, 14(28.0%) were between 26 and 32 years old, while a few, 8(16.0%) falls between 33 and 40 years of age. 20(40.0%) obtain only primary education with majority of the participants, 22(44.0%) having secondary education while the rest, 8(16.0%) obtain higher education. Also, table 1 shows that 15(30.0%) were employed either as civil servants or traders while 35(70.0%) were just housewives. 14(28.0%) were primigravids and 36(72.0%) were multigravids. Majority, 30(60.0%) were from nuclear family while 20(40.0%) were from extended family.

Variables	Higher degree of maternal knowledge n [%]		Lower degree of maternal knowledge n [%]	
	Before	After	Before	After
Benefits of exclusive breastfeeding to infants	17 [34]	47 [94]	33 [66]	3 [6]
Benefits of exclusive breastfeeding to mothers	11 [22]	45 [90]	39 [78]	5 [10]
WHO&UNICEF recommended questions	08 [16]	44[88]	42 [84]	6 [12]
Total	36 [24]	136 [90.6]	114 [76]	14 [9.4]

Table 2: Participants knowledge towards exclusive breastfeeding before and after educational intervention.

Variables	SA	A	D	SD	Mean ± SD
Benefits of breastfeeding last only as long as the baby is breastfed	35(70%)	13(26%)	2(4%)	0(0.0%)	3.69 ± 0.50
Breastfeeding increases mother-infant bonding	14(28%)	19(38%)	15(30%)	2(4%)	2.11 ± 0.86
Formula feeding is more convenient than breastfeeding	9(18%)	17(35%)	16(33%)	8(16%)	2.40 ± 0.93
Breast milk is the ideal food for babies	2(4%)	7(14%)	25(50%)	16(32%)	3.12 ± 0.77
Formula feeding is the better choice if the mother plans to go back to work	16(32%)	14(28%)	16(32%)	4(8%)	2.76 ± 0.97
Breastfed babies are healthier than formula fed babies	6(12%)	10(20%)	24(48%)	10(20%)	2.95 ± 0.84
Breast milk is cheaper than formula	21(42%)	24(48%)	3(6%)	2(4%)	3.28 ± 0.77

Table 3: Participants attitude towards exclusive breastfeeding before educational intervention.

From table 4, majority 35(70%) of the respondents strongly agreed that benefits of breastfeeding last long as long as the baby is breastfed, 13(26%) agreed while 2(4%) disagreed. 28% strongly agreed that breastfeeding increases mother-infant bonding. 35% agreed that formula feeding is more convenient than breastfeeding. However, majority 50% strongly disagreed that breast milk is the ideal food for babies. Few (8%) indicated that formula feeding is the better choice if the mother plans to go back to work. Also, only few (12%) strongly agree that breastfed babies are healthier than formula fed babies. However, larger percentage (48%) affirmed that breast milk is cheaper than formula.

From table 5, only 7(14.0%) of participant have practiced exclusive breastfeeding before while the majority of participants 43(86.0%) have never practiced exclusive breastfeeding, the values are still the same for the same question after educational intervention since we are still considering the same participants. On the other hand, before educational intervention, only

	Before intervention		After intervention	
	Yes [%]	No [%]	Yes [%]	No [%]
Have you ever practiced exclusive breastfeeding?	10 [20]	40 [80]	10 [20]	40 [80]
Will you like to practice exclusive breastfeeding of this baby?	7 [14]	43 [86]	48 [96]	2 [4]

**Table 4:** Participants decision on exclusive breastfeeding before and after educational intervention.

10(20%) would like to practice exclusive breastfeeding while 40(80%) planned not to exclusive breastfed, but after exclusive breastfeeding educational intervention, about 48(96%) were willing to exclusively breastfeed their babies.

	Degree of knowledge towards exclusive breastfeeding		Total	X2	Df	p-value
	Higher degree	Lower degree				
Before intervention	36	114	150			
After intervention	136	14	150	33.371	2	0.000
Total	172	128	300			

**Table 5:** Chi-square analysis of knowledge before and after educational intervention.

**Testing of hypotheses**

Decision rule; if the p-value is less than 0.05, the null hypothesis (Ho) will be rejected and the alternative hypothesis (Hi) will be accepted, otherwise null hypothesis will be accepted if p-value is greater than 0.05.

- **Hypothesis 1:** There is no significant difference between the knowledge before and after educational intervention.

From table 6, the p-value (0.000) is lesser than 0.05, the null hypothesis (Ho) will therefore be rejected and the alternative accepted. Therefore, there is a significant difference between the knowledge before and after educational intervention.

**Hypothesis two**

There is no significant difference between knowledge and practice of exclusive breastfeeding before and after educational intervention.

	Practice of exclusive breastfeeding		Total	X2	Df	p-value
	Yes	No				
Before intervention	10	40	50			
After intervention	48	2	50	1.072	2	0.585
Total	58	42	100			

**Table 6:** Chi-square analysis of knowledge and practice of exclusive breastfeeding before and after educational intervention.

From table 6, the p-value (0.585) is greater than 0.05, the null hypothesis (Ho) will therefore be accepted. Therefore, there is no significant difference between knowledge and practice of exclusive breastfeeding before and after exclusive breastfeeding.

**Hypothesis three**

There is no significant relationship between the level of education, and decision to practice exclusive breastfeeding before and after educational intervention.

Level of education	Decision to practice of exclusive breastfeeding								
	Before intervention			After intervention					
	Yes	No	Total	Yes	No	Total	X2	Df	p-value
Primary	3	20	23	15	1	16			
Secondary	5	15	20	15	1	16	15.243	2	0.003
University	2	5	7	18	-	18			
Total	10	40	50	48	2	50			

**Table 7:** Level of education and decision to practice exclusive breastfeeding.

From table 7, the p-value (0.003) is lesser than 0.05, the null hypothesis (Ho) will therefore be rejected and the alternative accepted. Therefore, there is significant difference between the level of education and decision to practice exclusive breastfeeding before and after educational intervention.

**Discussion**

Analysis of the socio-demographics showed that majority of the respondents were between ages 18-25 years. In respect to employment status, majority were housewives with few being gainfully employed. This is in consonance with the study of [18] on the effectiveness of educational intervention on exclusive breastfeeding among primi pregnant women in Mysuru, Karnataka state of India. Also, the analysis of educational status indicated that all participants are literate with the majority attaining secondary education, therefore corroborating the study of [19] on breastfeeding education and exclusive breastfeeding practices among mothers in Ibadan, Oyo State. Majority of the respondents were multigravids and concerning the type of family, majority were from the nuclear family. This can be attributed to the fact that the study was conducted in a Christian dominated setting.

**Level of pre-intervention knowledge and attitude towards exclusive breastfeeding**

Analysis of this section revealed that majority of the respondents had inadequate knowledge of exclusive breastfeeding indicating

that majority of the respondents do not understand the importance of exclusive breastfeeding. This finding is in consonance with the findings of [20] in their study knowledge and practice of exclusive breastfeeding among antenatal attendees in Uyo, southern Nigeria which recorded that the level of knowledge and practice of exclusive breastfeeding in the study centre was poor. The finding of this study is also in line with the findings of [21] in their study of exclusive breastfeeding knowledge, intention to practice and predictors among primiparous women in Enugu south-east Nigeria which recorded a poor knowledge of exclusive breastfeeding and intention to practice in the population. Consistently, [22] in their study on the knowledge and practice of exclusive breastfeeding among mothers in tamale metropolis of Ghana reported that although all participants had some level of education background, a majority does not have adequate knowledge on exclusive breastfeeding and so its practice was low in the study community. Regarding attitude, the findings of this study which indicate a poor attitude by the participants towards exclusive breastfeeding correspond to the findings of [23] on the effectiveness of a group educational intervention-prolactin primary care to promote exclusive breastfeeding in a region in Spain, just like the findings of this study, respondents have right attitude towards breastfeeding but not exclusive breastfeeding.

### Post-intervention knowledge and decision to practice exclusive breastfeeding

The effect of nursing educational intervention on increasing knowledge and attitude is obvious as the result of the current study proves the improvement in the exclusive breastfeeding knowledge and attitude of mothers after breastfeeding education. The findings showed an improvement in the decision to practice exclusive breastfeeding after educational intervention. In addition to this the findings revealed that there is a significant difference between the knowledge before and after educational intervention and also there is significant relationship between the level of education and decision to practice exclusive breastfeeding before and after educational intervention. This corresponds to the findings [14] in his study promotion of breastfeeding in the community: impact of health education programme in rural communities in Nigeria recorded that health education programme in rural communities lead to behavioural changes and increase in knowledge towards exclusive breastfeeding practice. In the study of [25] on effects of prenatal education on breastfeeding initiation and exclusive breastfeeding rate in selected health institutions in Hawassa city, Ethiopia also recorded that prenatal educational intervention was a positive predictor in the increase of exclusive breastfeeding practice among women in the intervention group. Consistently, [4] in their study effects of a combined intervention (antenatal and postnatal) on exclusive breastfeeding in primiparas reported that written breastfeeding materials and proactive telephone support are an effective means of significantly increasing exclusive breastfeeding rate. However, the findings further revealed that there is no significant difference between knowledge and practice of exclusive breastfeeding before and after exclusive breastfeeding. In the study of [19] on breastfeeding education and exclusive breastfeeding practices among mothers in Ibadan, Oyo state reported a low practice of exclusive breastfeeding among mothers despite receiving breastfeeding education. This may be due to lack of strategic instruments to prevent misunderstanding of certain guidelines, inadequate motivation or follow up from health workers or perceived insufficient breast milk or just personal decision to shun the information received about positive effect of exclusive breastfeeding.

### Conclusion

This study investigated the effect of educational intervention on knowledge and attitude of pregnant women towards exclusive

breastfeeding in General Hospital Iju-Itaogbolu, Ondo State. The study sought to assess the baseline knowledge and attitudes of pregnant women towards exclusive breastfeeding, assess the effect of a breastfeeding educational intervention on knowledge and attitude of pregnant women on exclusive breastfeeding. Findings from the analysis showed that majority of the respondents had poor baseline knowledge of exclusive breastfeeding with only very few having fair knowledge of exclusive breastfeeding.

Attitude and decision to exclusive breastfeeding of the majority of the respondents were poor a prior to educational intervention. It was also revealed that at the end of educational intervention, almost all participants had good knowledge of exclusive breastfeeding and ultimately a good attitude and right decision towards exclusive breastfeeding. Hypothesis results revealed that there is a significant difference between the knowledge before and after educational intervention. However, the knowledge does not have effect on the decision towards practice of exclusive breastfeeding. The main limitations of this study are being a small study from a single centre, the sample size is not very large and the short follow-up. It is therefore recommended that a standard exclusive breastfeeding educational package for pregnant mothers by nurses and health professionals be produced and distributed to mothers during antenatal visits. In addition, the study should be replicated during the intrapartum and postpartum period to influence mothers attitude towards practice of exclusive breastfeeding.

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### Conflict of Interest

None declared.

### Bibliography

1. Dieterich CM., *et al.* "Breastfeeding and health outcomes for the mother-infant dyad". *Pediatric Clinics of North America* 60.1 (2013): 31-48.
2. Eidelman AI., *et al.* "Breastfeeding and the use of human milk". *Pediatrics* 129.3 (2012): e827-e41.



3. Victora CG., *et al.* "Breastfeeding in the 21st century: Epidemiology, mechanisms, and lifelong effect". *Lancet* 387 (2016): 475-490.
4. Ballard O., *et al.* "Human milk composition: Nutrients and Bioactive Factors". *Pediatric Clinics of North America* 60.1 (2013): 49-74.
5. Sankar MJ., *et al.* "Optimal breastfeeding practices and infant and child mortality: a systematic review and meta-analysis". *Acta Paediatrica* 104.467 (2015): 3-13.
6. Horta BL., *et al.* "Breastfeeding and intelligence: systematic review and meta-analysis". *Acta Paediatrica* 104 (2015): 14-19.
7. Mannan H. "Early Infant Feeding of Formula or Solid Foods and Risk of Childhood Overweight or Obesity in a Socioeconomically Disadvantaged Region of Australia: A Longitudinal Cohort Analysis". *International Journal of Environmental Research and Public Health* 15 (2018): 1685.
8. Gupta A., *et al.* "Infant Malnutrition/Breastfeeding". Reference Module in Biomedical Sciences: Elsevier. (2015).
9. Benova L., *et al.* "Time trends and determinants of breastfeeding practices among adolescents and young women in Nigeria, 2003-2018". *BMJ Global Health* 5.8 (2020): e002516.
10. Bai Y., *et al.* "Predicting Intentions to Continue Exclusive Breastfeeding for 6 Months: a Comparison Among Racial/Ethnic Groups". *Maternal and Child Health Journal* 15 (2011): 1257-1264.
11. UNICEF/WHO. Capture the Moment-Early Initiation of Breastfeeding: The Best Start for Every Newborn; UNICEF: New York, NY, USA, (2018).
12. Khamis AG., *et al.* "Prevalence of Exclusive Breastfeeding and its Predictors among mothers in Micheweni, Chake-Chake and North 'A' districts, Zanzibar". *Clinics Mother Child Health* 14 (2017): 259.
13. Oche MO., *et al.* "Knowledge and practice of exclusive breastfeeding in Kware, Nigeria". *African Health Sciences* 11.3 (2011): 518-552.
14. Phukan D., *et al.* "Impact of timing of breastfeeding initiation on neonatal mortality in India". *International Breastfeeding Journal* 13 (2018): 27.
15. Ogbo FA., *et al.* "Determinants of suboptimal breastfeeding practices in Nigeria: evidence from the 2008 Demographic and Health Survey". *BMC Public Health* 15.1 (2015): 259.
16. Renuka M., *et al.* Effectiveness of educational intervention on breastfeeding among primi pregnant women- a longitudinal study". *Clinical Epidemiology and Global Health* 8.4 (2020): 1306-1311.
17. Ndikom CM., *et al.* "Breastfeeding education and exclusive breastfeeding practices among mothers in Ibadan, Oyo State, Nigeria". *LAUTECH Journal of Nursing* 5 (2020).
18. Abasiattai AM., *et al.* "Knowledge and practice of exclusive breastfeeding among antenatal attendees in Uyo, Southern Nigeria". *European Journal of Therapy* (2014).
19. Ihudiebube-Splendor C'N', *et al.* "Exclusive Breastfeeding Knowledge, Intention to Practice and Predictors among Primiparous Women in Enugu South-East, Nigeria". *Journal of Pregnancy* (2019).
20. Nukpezah RN., *et al.* "Knowledge and practice of exclusive breastfeeding among mothers in the Tamale Metropolis of Ghana". *Reproductive Health* 15 (2018): 140.
21. Santamaría-Martín MJ., *et al.* "Effectiveness of a group educational intervention - prolact - in primary care to promote exclusive breastfeeding: a cluster randomized clinical trial". *BMC Pregnancy Childbirth* 22 (2022): 132.
22. Davies-Adetugbo AA. "Promotion of breast feeding in the community: impact of health education programme in rural communities in Nigeria". *Journal of Diarrhoeal Diseases Research* 14.1 (1996): 5-11.
23. Sewhareg B., *et al.* "Effect of prenatal education on breastfeeding initiation and exclusive breast feeding rate in Selected Health Institutions of Hawassa City, the Capital of snpr", Ethiopia Article". *East African Journal of Public Health* 10.4 (2013): 622-631.
24. Puharić D., *et al.* "The effect of a combined intervention on exclusive breastfeeding in primiparas: A randomised controlled trial". *Maternal and Child Nutrition* 16.3 (2020): e12948.