

## PERCEIVED EFFECTS OF EXCLUSIVE BREASTFEEDING ON NURSING MOTHERS ATTENDING HOSPITALS IN OGUN STATE

NOFIU OLUWATOBI DANIEL<sup>1\*</sup>, EMMANUEL ECHE OLOFU<sup>1</sup>, JOHN OYIKOICHO ALAPA<sup>2</sup>, BANMANG EZEKIEL KUMNAH<sup>3</sup>

<sup>1</sup>Department of Physical and Health Education, University of Maiduguri, Maiduguri, NIGERIA.

\*Email: daniel4gem@gmail.com

<sup>2</sup>College of Education, Oju, Benue State, NIGERIA.

<sup>3</sup>Physical Health Education Department, FCE Pankshin, Plateau State, NIGERIA.

**How to cite this article:** Daniel, N.O., Olofu, E.E., Alapa, J.O., & Kumnah, B.E. (September 2020). Perceived effects of exclusive breastfeeding on nursing mothers attending hospitals in Ogun state. Journal of Physical Education Research, Volume 7, Issue III, 01-07.

**Received:** May 13, 2020

**Accepted:** September 20, 2020

### ABSTRACT

*This study was carried out to investigate the perceived effects of exclusive breastfeeding on nursing mothers attending hospitals in Ogun State with emphasis on how breastfeeding affects the nursing mothers both positively and negatively; influence a reduced risk of metabolic syndrome among nursing mothers and low sexuality at early postpartum period among nursing mothers. Ex post facto research design was used for the study. A total of 384 respondents (nursing mothers) were selected from the population in adopting a researcher-structured questionnaire as research instrument for data collection from respondents. Two hypotheses were formulated for the study. The data collected was analyzed using an inferential statistics of chi-square to test the research hypotheses set for the study at 0.05 alpha level of significance. The results revealed that exclusive breastfeeding significantly influence a reduced risk of metabolic syndrome among nursing mothers with calculated  $\chi^2$  value 312.43 > table value of 16.92 at df 9 and Exclusive breastfeeding significantly influence low sexuality at early postpartum period among nursing mothers with calculated  $\chi^2$  value 631.43 > table value of 16.92 at df 9. Based on the findings, conclusions were made that exclusive breastfeeding significantly influence a low metabolic risk among nursing mothers in Ogun State. And exclusive breastfeeding significantly influences low sexuality at early postpartum period among nursing mothers. Based on the conclusion, the following recommendation were made that nursing mothers should be encouraged to exclusively breastfeed their infants and policy makers, health care and medical professionals should support exclusive breastfeeding to prevent high risk of developing metabolic syndrome (a combination of medical disorders) and other disorders associated with not breastfeeding exclusively.*

**Keywords:** Exclusive breastfeeding, nursing mothers, hospitals, Ogun state.

### 1. INTRODUCTION

Breastfeeding is a natural way of providing nutritious food to infants. It is a way of providing ideal food for the healthy growth and development of infants; it is also an integral part of the reproductive process with important implications for the health of mothers. Although breastfeeding is not recommended for all mothers (such as those who use illegal drugs, receive cancer chemotherapy, or test HIV-positive). It is recognized as the preferred form of infant nutrition by the (American Academy of Pediatrics, 2012). According to World Health Organization (WHO, 2011), exclusive breastfeeding is the practice of feeding an infant only with breast milk (including expressed breast milk) and allowing the infant to receive vitamins, minerals supplement or medicine with the exception of other liquids and solid food.

Exclusive breastfeeding is now a widely accepted form of nutrition for infants to ensure a good start of life.

Breastfeeding is calorically costly and is therefore associated with weight loss after pregnancy. Human mothers devote an estimated 525 to 625 calories per day producing the 750 ml of milk infants require daily over the first year of life (Garza & Ramussen, 2015). In a study that followed more than 20,000 Danish women from pregnancy to 18 months postpartum, women who exclusively breastfed for the recommended 6 months after birth lost an additional 2kgs (4.4 pounds) of pregnancy-related weight by 6 months postpartum than women who breastfed for shorter durations (Baker et al., 2016). In line with this result, a systematic review of 20 studies showed that exclusive feeding with breast milk for the first 6 months postpartum predicts significantly greater post pregnancy weight loss than with mixed forms of breastfeeding (breastfeeding while introducing other foods or liquids) (Kramer & Kakuma, 2014).

Studies have also shown that women with a history of breastfeeding have a reduced risk of developing metabolic syndrome, a combination of medical disorders, such as obesity, insulin resistance, and high blood pressure, which increases the risk of cardiovascular disease and diabetes (Ford et al., 2017). A cross-sectional analysis of 2,516 midlife women found a 20% reduction in the risk of developing metabolic syndrome for every additional year of breastfeeding (Ram et al., 2016). A large study found that women who breastfed over their lifetime for 2 years or more were 23% less likely to develop coronary heart disease than women who never breastfed, even after controlling for parental history, early adult adiposity, and various lifestyle factors (Stuebe et al., 2017). Breastfeeding may also protect against breast and ovarian cancers by suppressing ovulation, and thus limiting lifetime estrogen exposure (Clemons & Goss, 2011). There is 1.4% reduction in ovarian cancer risk for every additional month of breastfeeding (Jordan et al., 2016). Breastfeeding has many possible benefits for mothers, but it can also clash with other goals for women. Most mothers will have some nipple discomfort during the first 10 days of breastfeeding (Riordan, 2005). If pain is prolonged, a medical assessment by a lactation consultant or nurse is usually required to identify the source of the problem. The most common causes of severe nipple pain are nonideal positioning of the infant at the breast or poor suckling technique on the part of the infant (Morland-Schultz & Hill, 2005).

Despite the existence and dissemination of the contents of the National Policy of Health on the benefits of breastfeeding, exclusive breastfeeding practices have remained poor. The practice of exclusive breastfeeding has been less optimal in many developing countries including Nigeria. More than 50% of Nigerian mothers fed contemporary foods too early to their infants which are often of very poor nutritional value (Federal Ministry of Health, 2005). Often times, these practices are as a result of traditional and modern perceptions of breastfeeding and its benefits, some of which are not based on scientific evidence (Aniebue, Aniebue, & Adimora, 2016; Semanga et al., 2011; Adugne, 2018).

More so, studies have also shown that women without a history of breastfeeding have a high risk of developing metabolic syndrome such as obesity, insulin resistance, and high blood pressure, which increases the risk of cardiovascular disease and diabetes (Ford et al., 2017). Breastfeeding cause partners to have negative attitudes toward breastfeeding in relation to its impact on women's sexuality (Rempel & Rempel, 2011). Breastfeeding lowers women's estrogen levels in the early postpartum period (Battin, Marrs, Fleiss & Mishell, 2016), which can lead to decreases in sexual desire and cause vaginal dryness for a subset of women, making sex painful (Brown & McDaniel, 2016). It was observed that nursing mothers who do not breastfeed exclusively suffer mostly from cancer and metabolic syndrome. It was also observed that nursing mothers who breastfeed exclusively experience low sexuality at early postpartum period. This promoted the researchers to investigate the perceived effects of exclusive breastfeeding on nursing mothers attending hospitals in Ogun State.

## 1.1 Hypotheses

The following research hypotheses were formulated to work on:

- (i) exclusive breastfeeding will not significantly influence a reduced risk of metabolic syndrome among nursing mothers attending hospitals in Ogun State.
- (ii) exclusive breastfeeding will not significantly influence low sexuality at early postpartum period among nursing mothers attending hospitals in Ogun State.

## 2. METHODS AND MATERIALS

### 2.1 Research Design

The research design adopted for this study was ex post facto research design. It is suitable for this research since the study is a non-experimental research. This is in line with the opinion of Nofiu (2019) who reported that ex post facto research design is used to reveal current conditions that exist between specific event, through orderly collection, analyzing, interpretation and reporting of facts and information of conditions and circumstances. The information needed by the researcher was collected through the use of this design which is a non-experimental design.

### 2.2 Population of the Study

The population of the study comprised of all nursing mothers attending hospitals in Ogun State. According to National Population Commission Projection (2019), there were 641,445 nursing mothers attending hospitals in Ogun State.

### 2.3 Sample and Sampling Technique

The sample size of this study was 384 nursing mothers. A multi-stage sampling approach that involved a stratified random sampling technique, simple random sampling technique and convenient sampling techniques was used for this study. The first stage involved the use of stratified random sampling technique where the general hospitals in Ogun State was stratified into 3 senatorial districts which were Ogun West, Ogun Central and Ogun East. The second stage involved the use of simple random sampling technique to select one general hospital from each senatorial district by writing all the hospital in each senatorial district on a roll piece of paper, placed in a container, shuffled it, and the selection was made. The third stage involved the use of convenient sample techniques to select the respondents (nursing mothers) attending each hospital. The value 0.171 (17.1%) used in the above sample size calculation represents the proportion of nursing mothers in the country and Ogun State (National population Commission, 2006 and National Population Commission (NPC) and ICF Macro, 2009). The distribution of the number of respondents used in the various hospitals were shown below;

**Table 1: Sample size**

Senatorial District/ Hospitals	Total Population	Target population (17.1% or 0.171)	Proportion of Sample Size
OGUN EAST (Olabisi Onabanjo University Teaching Hospital, Sagamu)	1,250,435	213,825	128
OGUN CENTRAL (Federal Medical Centre, Idi-Aba, Abeokuta)	1,387,944	237,338	142
OGUN WEST (General Hospital, Sango Ota)	1,112,761	190,282	114
<b>Total</b>	<b>3,751,140</b>	<b>641,445</b>	<b>384</b>

## 2.4 Instrumentation

The research instrument that was used for this study was a self-structured questionnaire. The instruments consist of two sections. Section A focuses on the demographic data of the respondents, while Section B consists of statement that was used to test the research hypotheses set for the study. Four point Likert scale was used which comprised of Strongly Agreed (SA), Agreed (A), Disagreed (D) and Strongly Disagreed (SD). In order to establish the validity of the instrument, the questionnaire was vetted by three (3) experts in the Health Education, University of Maiduguri and Ahmadu Bello University, Zaria for comment, observations, correction and suggestions. After incorporating all the suggestions made by the experts, final questionnaire was prepared for gathering information for the study.

## 2.5 Data Collection

The researchers administered the questionnaire to the respondents and ensured the questionnaire were properly filled and collected. Convenient sampling technique was used to select the respondents to fill the questionnaire at the various hospital. The researchers administered 384 copies of the questionnaire to the selected hospital in the sampled local government areas of the three (3) senatorial zones in Ogun State. In each hospital, the researchers conveniently administered the questionnaire to the respondents in the pediatrics unit and collect it back at the spot due to the pandemic in the country.

## 2.6 Data Analysis

The questionnaires were collected, coded, and analyzed. A descriptive statistics of frequency count and percentage was used to analyze the personal data of the respondents while inferential statistics of Chi-square was used to analyze the hypotheses set for the study at 0.05 alpha level of significance to either accept or reject the hypotheses using statistical package for social science (SPSS) version 22.0.

## 3. RESULTS

**Table 2: Demographic characteristics of the respondents**

Variable		Frequency	Percentage (%)
Age Range of Mothers in years	18 – 25 years	88	22.9
	26 – 35 years	194	50.5
	36 – 49 years	102	26.6
	<b>Total</b>	<b>384</b>	<b>100.0</b>
Level of Education	No formal Education	35	9.1
	Primary Education	44	11.5
	Secondary Education	139	36.2
	Tertiary Education	166	43.2
	<b>Total</b>	<b>384</b>	<b>100.0</b>
Occupation	Civil Servant	117	30.5
	Self employed	163	42.4
	Housewife	104	27.1
	<b>Total</b>	<b>384</b>	<b>100.0</b>

Table 2 above shows the demographic characteristics of the respondents, 88 (22.9%) of the respondents fell between the age range of 18 – 25 years, 194 (50.5%) of the respondents fell between the age range of 26 – 35 years while 102 (26.6%) of the respondents fell between the age range of 36 – 49 years. 35(9.1%) of the respondents have no formal education, 44

911.5%) of the respondents have primary education, 139 (36.2%) of the respondents have secondary education while 166 (43.2%) of the respondents have tertiary education. 117 (30.5%) of the respondents were civil servants, 163 (42.4%) of the respondents were self-employed while 104 (27.1%) of the respondents were housewives.

**Table 3: Chi-square Analysis of exclusive breastfeeding and metabolic syndrome among nursing mothers in Ogun state**

S.N.	Items	SA	A	D	SD	Cal $\chi^2$
1	The risk of developing high blood pressure is low among nursing mothers who exclusively breastfeed	178 (46.4%)	154 (40.1%)	42 (10.9%)	10 (2.6%)	312.43
2	Nursing mothers should be encouraged to breastfeed exclusively so as not to develop heart disease	279 (72.7%)	57 (14.8%)	25 (6.5%)	23 (6.0%)	
3	Nursing mothers who breastfeed for a year or two are less likely to develop diabetes	204 (53.1%)	152 (39.6%)	21 (5.5%)	7 (1.8%)	
4	Breastfeeding mothers are less likely to develop obesity	190 (49.0%)	145 (37.8%)	44 (11.5%)	5 (1.3%)	
	<b>Column Total</b>	<b>851</b>	<b>508</b>	<b>132</b>	<b>45</b>	

@0.05 alpha level of significance

Tab Value (9 df) = 16.92

Above table 3 shows the calculated value ( $\chi^2$ ) is 312.43 which is greater than the table value (16.92) at 9 degree of freedom with 0.05 alpha level of significance, hence, the null hypothesis is thereby rejected, meaning that exclusive breastfeeding will significantly influence a reduced risk of metabolic syndrome among nursing mothers attending hospitals in Ogun State. This implies that nursing mothers are encouraged towards exclusive breastfeeding so as not to develop the risk of metabolic syndrome.

**Table 4: Chi-square Analysis of exclusive breastfeeding and reduced sexuality among nursing mothers in Ogun state**

S.N.	Items	SA	A	D	SD	Cal $\chi^2$
1	Nursing mothers who breastfeed exclusively experience vaginal dryness at early post-partum during sexual intercourse	244 (63.5%)	100 (26.0%)	24 (6.3%)	16 (4.2%)	631.43
2	Breastfeeding mother should be encouraged to avoid sex at early post-partum so as to avoid painful sex	202 (52.6%)	174 (45.3%)	6 (1.6%)	2 (0.5%)	
3	Exclusive breastfeeding decreases sexual desire at early postpartum period among nursing mothers	247 (64.3%)	100 (26.0%)	6 (1.6%)	31 (8.1%)	
4	Breastfeeding mothers experience more vaginal pain during intercourse at 3 months postpartum	242 (63.0%)	129 (33.6%)	3 (0.8%)	10 (2.6%)	
	<b>Column Total</b>	<b>935</b>	<b>503</b>	<b>39</b>	<b>59</b>	

@0.05 alpha level of significance

Tab Value (9 df) = 16.92

The above Table 4 shows the calculated value ( $\chi^2$ ) is 631.43 which is greater than the table value (16.92) at 9 degree of freedom with 0.05 alpha level of significance, hence the null hypothesis is rejected, meaning that exclusive breastfeeding significantly influences low sexuality at early postpartum period among nursing mothers attending hospitals in Ogun State. This implies that breastfeeding mothers should avoid sexual intercourse at early post partum period.



#### 4. DISCUSSION

From the results of the study is evident that exclusive breastfeeding significantly reduces risk of metabolic syndrome among nursing mothers attending hospitals in Ogun State. This finding is in line with the findings of Ram et al., (2016) that a cross-sectional analysis of 2,516 midlife breastfeeding mothers found a 20% reduction in the risk of developing metabolic syndrome for every additional year of breastfeeding. The authors noted that, although weight loss associated with breastfeeding accounted for a significant portion of the reduced risk. In their sample, breastfeeding was associated with reductions in metabolic syndrome risk above and beyond weight loss, even when health behaviors and socio-demographic variables were statistically controlled. These benefits could owe to the observation that breastfeeding primes the body to become more metabolically efficient.

It was also documented from the results that exclusive breastfeeding significantly influences low sexuality at early postpartum period among nursing mothers attending hospitals in Ogun State. Brown & McDaniel (2016) also reported that breastfeeding leads to decrease in sexual desire and cause vaginal dryness for a subset of women, making sex painful. Overall, women perceive that breastfeeding has a slightly negative impact on the physiological aspects of sexuality. Twelve point seven percent of breastfeeding mothers reported that breastfeeding made them less sexually attractive and less sexually attracted to their partners.

#### 5. CONCLUSION

Based on the research carried out on the perceived effects of exclusive breastfeeding on nursing mothers attending hospitals in Ogun State, the following conclusions were made-

- Exclusive breastfeeding significantly influences a reduced risk of metabolic syndrome among nursing mothers attending hospitals in Ogun State
- Exclusive breastfeeding significantly influences low sexuality at early postpartum period among nursing mothers attending hospitals in Ogun State.

#### 6. REFERENCES

- Adugne, D.T. (2016). Women's Perception and risk factors for delayed initiation of breastfeeding in Arab Minch Zuria, southern Ethiopia. *International Breastfeed Journal*, 9, 8.
- American Academy of Pediatrics (2012). *Breastfeeding and the use of human milk*. *Pediatrics*, 129, e827.
- Aniebue, P.N., Aniebue, U.U., & Adimora, G.N. (2016). Knowledge and beliefs about exclusive breastfeeding among rural Nigerian men in Enugu, southeast Nigeria. *Breastfeed Medicine*, 5(4), 169-171.
- Baker, J.L., Gamborg, M., Heitmann, B.L., Lissner, L., Sorensen, T.I., & Rasmussen, K.M. (2016). Breastfeeding reduces postpartum weight retention. *American Journal of Clinical Nutrition*, 88(6), 1543-1551.
- Battin, D.A., Marrs, R.P., Fleiss, P.M., & Mishell, D.R., Jr. (2016). Effect of suckling on serum prolactin, luteinizing hormone, follicle-stimulating hormone, and estradiol during prolonged lactation. *Obstetrics and Gynecology*, 65(6), 785-788.
- Brown, H. & McDaniel, M. (2016). A review of the implications and impact of pregnancy on sexual function. *Current Sexual Health Reports*, 5(1), 51-55.
- Clemons, M. & Goss, P. (2011). Estrogen and the risk of breast cancer. *New England Journal of Medicine*, 344(4), 276-285.
- Federal Ministry of Health (2005). *National policy on infant and young child feeding in Nigeria*. Abuja. Nutrition division, Federal Ministry of Health.
- Ford, E.S., Giles, W.H. & Dietz, W.H. (2017). Prevalence of the metabolic syndrome among US adults: Findings from the third National Health and Nutrition Examination Survey. *JAMA*, 287(3), 356-359.
- Garza, R. & Ramussen, K.M. (2015). Pregnancy and lactation. In J. S. Garrow, W. P. T. James, & A. Gill SL, Reifsnider E, Mann AR, Villarreal P, Tinkle MB. Assessing infant breastfeeding beliefs among low-income Mexican Americans. *Journal of Perinat Education* 2014; 13: 39-50.

- Jordan, S.J., Siskind, V., Green, C.A., Whiteman, D.C. & Webb, P.M. (2016). Breastfeeding and risk of epithelial ovarian cancer. *Cancer Causes Control*, 21(1), 109-116.
- Kramer, M.S. & Kakuma, R. (2014). The optimal duration of exclusive breastfeeding: A systematic review. *Advances in Experimental Medicine and Biology*, 554, 63-77.
- Morland-Schultz, K. & Hill, P. D. (2005). Prevention of and therapies for nipple pain: A systematic review. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 34(4), 428-437.
- Nofiu, O.D. (2019). *Assessment of the determinants of breast cancer screening among women of child bearing age in south west zone, Nigeria*. Retrieved from <https://nood-neil.org/product/assessment-of-the-determinants-of-breast-cancer-screening-among-women-of-child-bearing/>
- Ram, K. T., Bobby, P., Hailpern, S. M., Lo, J.C., Schocken, M., Skurnick, J. & Santoro, N. (2016). Duration of lactation is associated with lower prevalence of the metabolic syndrome in midlife: SWAN, the Study of Women's Health Across the Nation. *American Journal of Obstetrics and Gynecology*, 198(3), 268 e261-e266.
- Rempel, L. A. & Rempel, J. K. (2011). The breastfeeding team: The role of involved fathers in the breastfeeding family. *Journal of Human Lactation*, 27 (2), 115-121.
- Riordan, J. (2005). *Breastfeeding and human lactation* (3<sup>rd</sup> ed.). Sudbury, MA: Jones & Bartlett.
- Semanga, Jannet, I.J., Behler, E., Holm, H., Matheson, I., & Holmboe-Ottesen, G. (2011). Promoting breastfeeding in rural Gambia: combining traditional and modern knowledge. *Health Policy Plan*, 18(2) 199-205.
- Stuebe, A. M. & Rich-Edwards, J.W. (2017). The reset hypothesis: Lactation and maternal metabolism. *American Journal of Perinatology*, 26(1), 81-88.
- World Health Organization (2011). *Exclusive breastfeeding for six months best for babies everywhere*; Available from: <http://www.who/statements/2011/breastfeeding>.
- World Health Organization, (2017). *Infant and young child feeding: Model chapter for textbooks for medical students and allied health professionals*. Washington, DC: Author.