

## Breastfeeding practices of physician-mothers in Ife and Ilesa zones, Osun State, Nigeria

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### Abstract

**Background:** Physician-mothers' breastfeeding behaviour is being studied because it is believed to impact their anticipatory guidance to their patients, which in turn influences patients' breastfeeding initiation and continuation. Study assessed the breastfeeding practices of physician-mothers; their reasons for stopping exclusive breastfeeding and factors associated with their breastfeeding practices.

**Methods:** Study design was cross-sectional, conducted in Osun East Senatorial District, Nigeria. A self-administered semi-structured questionnaire was administered to all eligible 56 physician-mothers in public primary, secondary and tertiary health facilities in the reproductive age-group whose youngest child was aged d"five years. Informed consent was obtained. Outcome measures were time breastfeeding was initiated, duration of exclusive breastfeeding; reasons for stopping exclusive breastfeeding and duration of continued breastfeeding. Data was analysed using SPSS version 17, statistical significance was determined at p-value <0.05.

**Results:** Fifty (89.3%) responded. Seventy per cent initiated breastfeeding within 1hour after birth; exclusive breastfeeding rate was 28.0% with a mean duration of  $4.1 \pm 1.9$  months. Mean duration of continued breastfeeding was  $14.5 \pm 4.5$  months. Commonest reason for stopping exclusive breastfeeding was 'baby old enough' (35.8%). Mode of delivery was statistically significantly associated with time to initiate breastfeeding. Time to initiate breastfeeding was statistically significantly associated with duration of exclusive breastfeeding.

**Conclusion:** Breastfeeding practices of physician-mothers do not conform to the standards in the Innocenti Declaration. The impact of this on their professional support to clients' should be measured in further studies. It is recommended that targeted interventions be done to improve the attitude and breastfeeding practices of physician-mothers.

**Keywords:** Exclusive breastfeeding, breastfeeding initiation, physician-mothers

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### Résumé

**Contexte:** Une étude a été faite sur le comportement de l'allaitement maternel des médecin-mères ; car ce comportement a d'impact sur leur conseils préventifs à leurs patients et qui, à son tour, a d'influence sur l'initiation et la continuation de l'allaitement des patients. Cette étude a évalué les pratiques d'allaitement des médecins-mères, leurs raisons de cesser l'allaitement et les facteurs liés à leurs pratiques d'allaitement maternel exclusif.

**Méthodes:** La conception de cette étude, menée dans la région Est de l'Etat d'Osun, au Nigeria, était transversale. Un questionnaire semi-structuré auto-administré a été distribué à 56 médecins-mères admissibles dans les centres de santé et dans les hôpitaux en tenant compte du groupe d'âge de reproduction dont le plus jeune enfant était cinq ans. Un consentement clair a été obtenu.

Partant des résultats obtenus, les femmes sont instruites sur les mesures de temps d'allaitement, la durée de l'allaitement maternel exclusif; les raisons d'arrêter l'allaitement maternel exclusif et la durée de l'allaitement maternel prolongé. Les données ont été analysées avec le logiciel SPSS, version 17. La signification statistique a été déterminée à  $p < 0,05$ .

**Résultats:** Cinquante soit (89,3%) des personnes interrogées ont répondu ; Soixante-dix pour cent ont commencé à allaiter une heure après la naissance ; le taux d'allaitement maternel exclusif était 28,0% avec une durée moyenne de  $4,1 \pm 1,9$  mois. La durée moyenne de l'allaitement maternel était  $14,5 \pm 4,5$  mois. La raison la plus courante de l'arrêt d'allaitement exclusif était souvent « le bébé est assez âgé » (35,8%). La mode de livraison était très statistiquement liée au temps du commencement de l'allaitement. Le commencement de l'allaitement était aussi statistiquement lié à la durée de l'allaitement exclusif.

**Conclusion:** Les pratiques de l'allaitement maternel des médecin-mères ne sont pas conformes aux normes de la « Déclaration Innocenti ». L'impact de cette situation sur leur soutien professionnel aux clients » sera évalué dans des études ultérieures. Des interventions ciblées ont été recommandées pour améliorer les pratiques de l'attitude de l'allaitement des médecins-mères

### Introduction

Breastfeeding, a most affordable child survival strategy, is the process of giving a child breast milk either directly from the breast or expressed.[1,2] On the 1<sup>st</sup> of August 1990, at Spedale Degli Innocenti,

Florence in Italy, the Innocenti Declaration was proclaimed.[3] Nigeria has adopted the Innocenti Declaration and in furtherance to that, states in her National Policy for Infant and Young Child Feeding developed in 2005 that, 'all mothers are encouraged to initiate breastfeeding within 30 minutes of birth, exclusively breastfeed their infants for 6 months and continue breastfeeding with the giving of complementary foods for two years and beyond.[4] Much emphasis is being placed on early and exclusive breastfeeding for its substantial benefits in reducing child mortality and morbidity as suboptimal breastfeeding is responsible for 45% of neonatal infectious deaths, 30% of diarrhoeal deaths and 18% of acute respiratory deaths in children under five [5].

Using the global database maintained by the United Nations Children Fund (UNICEF) in 140 countries, Cai *et al* [6] found only a modest improvement in the prevalence of exclusive breastfeeding globally among children less than 6 months old from 33% in 1995 to 39% in 2010. According to the World Health Organization, the current global rate of exclusive breastfeeding in 2012 was 37% [5] which is slightly lower compared to the 2010 report using UNICEF's database. The prevalence of exclusive breastfeeding in the African Continent was 33% in 2012 as stated by UNICEF [7] and it is a very low 25% in West and Central African Region in 2013 [8]. This is rather low for the African continent which has one of the highest prevalence of low birth weight ranging from 7-42% [9] and an Infant Mortality Rate of 69 per 1000 live births [10].

The 2008 Nigeria Demographic Health Survey (NDHS) report also showed a downward trend of 17% to 13% in the prevalence of exclusive breastfeeding among children under-five years old from 2003 to 2008 when their mothers were asked if their children were placed on exclusive breastfeeding or not in their infancy [3]. It was also reported in the 2008 NDHS that only 38.4% of infants had their mothers initiate breastfeeding for them in the first one hour of birth. The mean duration of exclusive breastfeeding reported among the Nigerian infants in the 2008 NDHS was 1.6 months with the mean duration of continued breastfeeding not reported [3]. In Osun state, only 30.4% of the infants were initiated on breastfeeding within one hour of birth [3].

Physicians are expected to promote these breastfeeding policies as providers of health. It is also expected that they would practice what they teach and promote, but do they? Mothers need considerable education and support to initiate breastfeeding successfully, prevent breastfeeding

problems from occurring and to continue breastfeeding successfully.[11] Taveras reported that mothers have identified support received from health care providers as the single most important intervention the health care system could have offered to help them breastfeed [12,13].

Unfortunately, lack of support from professionals remains a major barrier to breastfeeding [13, 14]. Some studies have suggested that primary care physicians can increase breastfeeding rates through specific advice and practices during routine preventive visits [15]. However, the personal breastfeeding experience and practices of physicians as mothers could impact on the content of the education offered to these mothers. Hence, if physicians are key to promoting and protecting breastfeeding, their own breastfeeding practices as mothers should be assessed and targeted interventions developed to improve on their practices [11]. Unfortunately, few studies have examined the personal breastfeeding practices of physicians as mothers.

Sadoh *et al* [16] in 2011 studied the breastfeeding practices of 36 doctors in Nigeria and found their exclusive breastfeeding rate as 11.1% with the mean duration of exclusive breastfeeding given as  $2.9 \pm 1.8$  months. Also, their mean duration of continued breastfeeding was  $8.15 \pm 3.50$  months. They explored the breastfeeding practices of these doctors during working hours, but the reasons for stopping exclusive breastfeeding were not explored [16].

Physician-mothers would greatly influence the behaviour of their patients not only with the knowledge of the benefits of breastfeeding, but with a successful personal breastfeeding story [17]. Physician-mothers' breastfeeding behaviour is therefore being studied because it is believed to impact their anticipatory guidance to their patients [18], which in turn influences patients' breastfeeding initiation and continuation [19]. Hence, the objectives of this study were to assess the breastfeeding practices of physician-mothers; identify their reasons for stopping exclusive breastfeeding and determine the factors associated with their breastfeeding practices.

## Material and methods

The study was cross sectional in design, conducted among female physicians in the employment of the institutions sampled. Two Local Governments Areas (LGAs) each were selected purposively from the Ife and Ijesa zones. Preference was given to LGAs with a tertiary hospital, then any other LGA with at least a General Hospital or Comprehensive Health Centre

was selected. The selected LGAs were Ife central, Ife east, Ilesa west and Atakumosa west. All the public facilities in these selected LGAs were sampled. There were 64 public facilities in the sampled LGAs. These were distributed in type as 2 tertiary hospitals (Obafemi Awolowo University Teaching Hospital, Ile- Ife and its subsidiary, the Wesley Guild Hospital, Ilesa) and 7 secondary health facilities in the sampled LGAs. (In Osun State, all the Comprehensive Health Centres are rated as secondary health facilities). Included were also 55 primary health facilities.[20] However, a LGA has one Medical Officer of Health who covers all the Primary Health facilities in the LGA irrespective of the number of PHCs therein.

All eligible female physicians practicing in these public facilities in the selected LGAs were sampled. The eligibility criteria were being in the reproductive age group and having their last child less than five years of age as at the time of conducting the study. Fifty- six female physicians were eligible and they were all sampled irrespective of their areas of specialty. It is believed that physician-mothers would be relevant as counsellors both within and outside their official working hours.

A self-administered semi-structured pre-tested questionnaire was developed and administered to all eligible female physicians. A written informed consent was obtained from the respondents. The Helsinki Declaration principles were observed. The outcomes of interest were the time breastfeeding was initiated, the duration of exclusive and continued breastfeeding and the reasons for stopping exclusive breastfeeding. Exclusive breastfeeding as defined by the World Health Organization and the United Nations Children fund is an infant receiving only breast milk from the mother or expressed breast milk, and no other liquids or solids with the exception of drops or syrups consisting of vitamins, mineral supplements, or medicines [1, 2].

Data were analysed using the SPSS 17. Frequency distribution of the socio-demographic characteristics of the physician-mothers was done. Summary statistics of their mean duration for exclusive breastfeeding and continued breastfeeding was determined. Time breastfeeding was initiated was categorised into within 1hour and beyond 1hour. Also, duration of exclusive breastfeeding was regrouped into 6months and less than 6months. Factors associated with categorised time to initiate breastfeeding and duration of exclusive breastfeeding were determined. P-value < 0.05 was accepted as significant.

## Results

Of the 56- eligible physician-mothers studied, fifty (89.3%) responded. Their mean age was  $33.8 \pm 3.2$ . Their mean number of years since graduating from medical school was  $6.9 \pm 3.0$ . There were 28 (56%) of them distributed among the following specialties such as paediatrics; community medicine; family medicine; internal medicine; pathology; psychiatry. About 8 (16%) of them were in surgically-related professions such as obstetrics and gynaecology; radiology and anaesthesia. Also, 7 (14%) of them were dentists while the remaining 7 (14%) were medical officers in general practice. Of the 7 medical officers, 5 (71.4%) practiced in the secondary health facilities while 2 (28.6%) practiced in the primary health facilities.

A higher proportion of the respondents were Christians, 48 (96%) while 2 (4%) were of the Islamic religion. Majority of them, 42 (84%) were from the Yoruba ethnic group, 2 (4%) from Igbo and 6 (12%) from other minor ethnic groups in Nigeria. A higher proportion of them, 36 (72%) had their spouses as doctors and most of them, 47 (94%) had their spouses in full time employment. Delivery of the last born child was per vagina for 35 (70%) of them while 15 (30%) delivered via a Caesarean Section. Almost all, 48 (96%) delivered their babies at term, while 2 (4%) had pre-term delivery. The average number of children they had was  $2.0 \pm 1.0$ . Nineteen (38%) had one child as at the time of the interview, 17 (34%) had two, 1 (2%) had three while 4 (8%) had four children alive. The median age of their last born child was 24 months with a semi-interquartile range of 12.

**Table 1:** Breastfeeding practices of physician mothers in Ife and Ilesa zones, Osun State

Breastfeeding practices	n	%
Time to initiate breastfeeding		
• ≤1 hour	35	70.0
• 1hour ≤ 24 hours	14	28.0
• >24 hours	1	2.0
Exclusively breastfed infants for 6months		
• No	36	72.0
• Yes	14	28.0
Continued breastfeeding for ≥ 2 years		
• No	38	95.0
• Yes	2	5.0

Breastfeeding was initiated in the first hour after birth by 35 (70%) of them. Only 14 (28%) of the physician-mothers exclusively breastfed for 6 months. The mean duration of exclusive

breastfeeding was  $4.1 \pm 1.9$  months. Of the physician-mothers who responded, 10 (20%) were still breastfeeding as at the time of conduct of the survey with the mean age of their last born child being  $7.6 \pm 2.7$  in months. Of those who had stopped breastfeeding, only 2 (5%) of them continued breastfeeding up to 24 months and beyond with their mean duration of continued breastfeeding found to be  $14.1 \pm 4.5$  months. (Table 1) The commonest reasons given by all the physician-mothers studied for stopping exclusive breastfeeding was 'baby old enough as it was the right time' (35.8%) followed by the 'need to return to work' (11.9%) and 'baby hungry and not satisfied with breast milk alone' (11.9%). (Table 2).

**Table 2:** Reasons for stopping exclusive breastfeeding by physician mothers in Ife and Ilesa zones, Osun State

Reasons	n	%
Baby old enough, right time	24	35.8
Baby hungry, not satisfied	8	11.9
Returned to work	8	11.9
Teething / Biting	5	7.5
Not enough time, too busy	5	7.5
Baby's refusal	5	7.5
Insufficient breast milk	4	6.0
Sore or cracked nipples	2	3.0
Uncomfortable with breastfeeding	2	3.0
Poor weight gain	1	1.5
Started baby on formula	1	1.5
Mother ill	1	1.5
Mother got pregnant	1	1.5
Total responses	67	100.0

Delivery was per vagina in 30 (85.7%) of physician-mothers who initiated breastfeeding within one hour of birth compared with 5 (33.3%) of them who had Caesarean section who did same. Mode of delivery alone was statistically significantly associated with time to initiate breastfeeding,  $p < 0.001$ . (Table 3) Of the physician-mothers who initiated breastfeeding within one hour after birth, 13 (38.2%) of them exclusively breastfed for 6 months or more compared to only 1 (6.7%) of those who initiated breastfeeding after one hour of birth who exclusively breastfed for 6 months, ( $p = 0.038$ ). There was no statistically significant association between exclusively breastfeeding the infant for 6 months and age of the physician-mother ( $p = 0.655$ ); maturity of pregnancy as at time of delivery ( $p = 0.514$ ); spouse of physician-mother being a doctor ( $p = 1.000$ ); Spouse of physician-mother into full time jobs or not ( $p = 0.548$ ), (Table 4).

The mean duration of exclusive breastfeeding for physician-mothers who initiated breastfeeding within one hour of birth was  $4.5 \pm 1.8$  months while it was  $3.23 \pm 2.1$  months for those who initiated breastfeeding after one hour. The difference in their mean duration of exclusive breastfeeding was statistically significant ( $p = 0.031$ ; 95%CI: 0.13 - 2.47). For the physician-mothers who had ceased breastfeeding their last born child as at the time of conduct of the study, those who initiated breastfeeding within one hour after birth continued breastfeeding for a mean duration of  $13.7 \pm 4.4$  months while those who initiated breastfeeding after one hour continued breastfeeding for a mean duration of  $14.8 \pm 4.7$  months. The difference in their mean duration for continued

**Table 3:** Factors associated with time breastfeeding was initiated by physician-mothers

Variables	Initiated Breastfeeding within 1 hour of birth Freq. (%)	Initiated Breastfeeding after 1 hour of birth Freq. (%)	Total	P-value
Age of Physician-mother in categories				
≤ 34 years	14 (58.3)	10 (41.7)	24	0.143
>34 years	18 (78.3)	5 (21.7)	23	
Mode of delivery				
Vagina	30 (85.7)	5 (14.3)	35	* < 0.001
Caesarean section	5 (33.3)	10 (66.7)	15	
Maturity of pregnancy				
Pre- term	1 (50.0)	1 (50.0)	2	*0.514
Term	34 (70.8)	14 (29.2)	48	

\*Fishers exact

breastfeeding was not statistically significant ( $p = 0.501$ ; 95%CI: -4.14 - 2.06). beneficial to the infant particularly immunologically. This also shows that initiating breastfeeding within

**Table 4:** Factors associated with duration of exclusive breastfeeding by physician-mothers

Variables	Exclusively breastfed for $\geq 6$ months Freq. (%)	Exclusively breastfed for $< 6$ months Freq. (%)	Total	P-value
Age of Physician- mother in categories				
$\leq 34$ years	8 (33.3)	16(66.7)	24	0.655
$>34$ years	6 (27.3)	16 (72.7)	22	
Spouse a doctor				
Yes	4 (28.6)	10 (71.4)	14	*1.000
No	10 (28.6)	25 (71.4)	35	
Spouse's type of job				
Full-time jobs	14 (30.4)	32 (69.6)	46	*0.548
Part-time jobs	0 (0.0)	3 (100.0)	3	
Mode of Delivery				
Vagina	11 (32.4)	23 (67.6)	34	*0.502
Caesarean Section	3 (20.0)	12 (80.0)	15	
Maturity of pregnancy				
Pre-term	1 (50.0)	1 (50.0)	2	*0.494
Term	13 (70.8)	34 (29.2)	47	
Time breastfeeding was initiated				
$\leq 1$ hour	13 (38.2)	21 (61.8)	34	*0.038
$> 1$ hour	1 (6.7)	14 (93.3)	15	

\*Fishers exact

## Discussion

Physician-mothers studied were from multiple disciplines. This is strength for the study as physicians-mothers are relevant as breastfeeding counsellors both within and outside their official working hours in the health facilities. This also controls for the selection bias of physician-mothers from strictly maternal and child health related discipline which may impact on their breastfeeding practice. A high proportion of the physician-mothers 35 (70%) initiated breastfeeding for their infants within one hour. This finding was much higher than was reported for all Nigerian mothers in general and for mothers from the south west region in the 2008 Nigeria Demographic Health Survey [21] It was also higher than what was found amongst mothers in the Northern part of the country where only about 29% of the mothers initiated breastfeeding in the first hour of birth [22]. However, it was much lower than the findings of Duke et al in 2007 who found that 97% of the physicians surveyed initiated breastfeeding in the first one hour of birth [23]. This is important because of the giving of colostrums which is highly

one hour of birth is not a difficult thing for physicians-mothers.

The tertiary education received by physician-mothers and their being more than 24 years in age were factors expected to promote the duration of exclusive breastfeeding in them considering the findings of Lawoyin *et al* [24] that women aged 24 years or younger were less likely to breastfeed exclusively while Adetugbo *et al* [25] found that education was a strong determinant of exclusive breastfeeding breast feeding. However, being in the older age group with a mean age greater than 24 years and having a tertiary education did not significantly prolong the duration of exclusive breastfeeding in the physician-mothers studied as their exclusive breastfeeding rate was 28.0% as against 100% of them who should have exclusively breastfed their last born child. This exclusive breastfeeding rate was however higher than the 11.1% found amongst the 36 doctors studied by Sadoh *et al* [16] in South South Nigeria. The reason for this may be because they studied female doctors practicing only in tertiary institutions with possible busier schedule of duties

while we studied physician-mothers at all the levels of health care.

Having a vaginal delivery had a positive statistically significant association with early initiation of breastfeeding compared with physician-mothers who had a caesarean delivery. This obvious finding was similar to that of Prior *et al* [26] in 2012 in their systematic review and meta-analysis of breastfeeding after a caesarean delivery. Initiating breastfeeding within one hour was statistically significantly associated with breastfeeding exclusively for 6 months. There was also a statistically significant difference in the mean duration for exclusive breastfeeding for the physician-mothers who initiated breastfeeding within one hour after birth and those who did not. This means that the singular act of initiating breastfeeding within one hour had a positive effect on their duration of exclusive breastfeeding. This finding is similar to the findings of Ekstrom *et al* [27] in 2003 in a study conducted amongst Swedish primiparous and multiparous women. They also found that early initiation of breastfeeding positively influences the duration of exclusive breastfeeding. This early initiation of breastfeeding may also have initiated early the mother to child bonding and this might have impacted positively on the duration of exclusive breastfeeding.

The reasons for stopping breastfeeding as found in this study were similar to findings in similar studies [23, 28] such as need for the physicians to return to work and perceived insufficient breast milk for the child. Interestingly, one of the commonest reasons given by physician-mothers for discontinuing breastfeeding for their youngest child was the belief that it was the right time to stop breastfeeding or that the baby was old enough to be discontinued on breastfeeding. Knowing that their mean duration of continued breastfeeding as found in this study was  $14.1 \pm 4.5$  months which was grossly in contrast to the required minimum of 24 months stated in the Nigerian National Policy on Infant and Young Child feeding, it further suggests that physician-mothers do not practice what is stated in the Policy documents on breastfeeding and may not likely strongly promote it. The reasons for this may include inadequate knowledge of the standard breastfeeding practices which were not explored in this study.

### Conclusion and recommendation

In conclusion, most physician-mothers studied initiated breastfeeding within one hour of birth, but only a few exclusively breastfed for 6 months and a negligible proportion continued breastfeeding for 24

months. Breastfeeding practices of physician-mothers do not conform to the standards in the Innocenti Declaration and the National Policy on Infant and Young Child Feeding in Nigeria. It is hereby recommended that targeted interventions be carried out to improve the attitude and breastfeeding practices of physician-mothers. Medical women associations could help promote standard breastfeeding practices among their members. The impact of the breastfeeding practice of physician-mothers on the breastfeeding practices of their clients' needs to be measured in further studies. impact their anticipatory guidance to their patients, which in turn influences patients' breastfeeding initiation and continuation. Study assessed the breastfeeding practices of physician-mothers; their reasons for stopping exclusive breastfeeding and factors associated with their breastfeeding practices.

### References

1. Indicators for assessing breastfeeding practices. Report of an informal meeting in June 1991, Geneva. World Health Organization, Geneva.
2. Labbok MH and Krasovec K. Towards Consistency in breastfeeding definitions. *Stud Fam Plan.* 1990;21(4):226-230.
3. WHO-UNICEF. Innocent Declaration on the Protection, Promotion and Support of Breastfeeding. Breast-feeding in the 1990s. A Global Initiative. UNICEF, New York 1990.
4. National Policy on Infant and Young Child Feeding in Nigeria. Federal Ministry of Health, Nutrition Division, Abuja., 2005.
5. Bustreo F. World Breastfeeding Week 1–7 August 2012: Understanding the past – Planning the future: Celebrating 10 years of WHO/UNICEF's Global Strategy for Infant and Young Child Feeding. Maternal, newborn, child and adolescent health. 2012. Available from: [http://www.who.int/maternal\\_child\\_adolescent/news\\_events/news/2012/30\\_07\\_2012/en/](http://www.who.int/maternal_child_adolescent/news_events/news/2012/30_07_2012/en/). Accessed: June 5, 2013.
6. Cai X, Wardlaw T and Brown DW. Global trends in exclusive breastfeeding. *Int Breastfeed J.* 2012 Sep 28;7(1):12.
7. UNICEF. Nutrition: HIV and Infant feeding- Breastfeeding and HIV transmission. 2012. Available from: [http://www.unicef.org/nutrition/index\\_24827.html](http://www.unicef.org/nutrition/index_24827.html). Accessed: June 07, 2013
8. UNICEF. Statistics by Area / Child Nutrition: Current Status. Child Info: Monitoring the situation of women and children. 2013. Available from: <http://www.childinfo.org/>

- breastfeeding\_status.html. Accessed: June 07, 2013.
9. Food Safety and Nutrition; Overview. World Health Organization, Regional Office for Africa. 2012. Available from: <http://www.afro.who.int/en/clusters-a-programmes/hpr/food-safety-and-nutrition-fan/overview.html>. Accessed: June 5, 2013.
  10. UNICEF. Statistics by Area/ Child Survival and Health: Trends in Infant Mortality Rates, 1960-2011. Child Info: Monitoring the situation of women and children [Internet]. 2012 June 5, 2013. Available from: [http://www.childinfo.org/mortality\\_imrcountrydata.php](http://www.childinfo.org/mortality_imrcountrydata.php).
  11. Livingstone VH. The Family Physician's Role in Preventing Early Termination of Breastfeeding. *Can Fam Physician*. 1986;32:2162-2169.
  12. Taveras EM, Li R and Grummer-Strawn LM. Mothers' and clinicians' perspectives on breastfeeding counseling during routine preventive visits. *Pediatrics*. 2004;113(5):e405-411.
  13. Shealy KR, Li R, Benton-davis S, *et al*. The CDC Guide to Breastfeeding Interventions. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2005.
  14. Su LL, Chong YS, Chan YH, *et al*. Antenatal education and postnatal support strategies for improving rates of exclusive breast feeding: randomised controlled trial. *BMJ*. 2007;335:596-602.
  15. Labarere J, Gelbert-Baudino N, Ayral AS, *et al*. Efficacy of breastfeeding support provided by trained clinicians during an early, routine, preventive visit: a prospective, randomized, open trial of 226 mother-infant pairs. *Pediatrics*. 2005 February;115(2):e139-146.
  16. Sadoh AE, Sadoh WE, and Oniyelu P. Breast feeding practice among medical women in Nigeria. *Niger Med J*. 2011;52:7-12.
  17. Physician Mothers: How do we fare with breastfeeding?2011. Available from: <http://bfmed.wordpress.com/2011/01/04/physician-mothers-how-do-we-fare-with-breastfeeding/>. Accessed: June 05, 2013.
  18. Feldman-Winter LB, Schanler RJ, O'Connor KG and Lawrence RA. Pediatricians and the promotion and support of breastfeeding. *Arch Pediatr Adolesc Med*. 2008;162:1142-1149.
  19. Sattari M, Levine D, Bertram A and Serwint JR. Breastfeeding intentions of female physicians. *Breastfeed Med*. 2010;5(6):297-302. Epub 2010 Jun 24.
  20. Osun State Health Facility Inventory. In: Health Planning, Research and Statistics, Ministry of Health, Osogbo, editors. 2009. p. 87.
  21. Shillman RJ. The Role of the Entrepreneur in Society. Waseda University News. 2008.
  22. Okolo SN, Adewunmi YB, Okonji MC. Current breastfeeding knowledge, attitude, and practices of mothers in five rural communities in the Savannah region of Nigeria. *J Trop Pediatr*. 1999;45(6):323-326.
  23. Duke PS PW, Snow PA and Edwards AC. Physicians as mothers: breastfeeding practices of physician-mothers in Newfoundland and Labrador. *Can Fam Physician* 2007;53(5):886-891.
  24. Lawoyin TO, Olawuyi JF and Onadeko MO. Factors associated with exclusive breastfeeding in Ibadan, Nigeria. *J Hum Lact*. 2001 Nov;17(4):321-5. PubMed PMID: 11847901. Epub 2002/02/19.
  25. Davies-Adetugbo AA, Ojofeitimi EO. Maternal education, breastfeeding behaviours and lactational amenorrhoea: studies among two ethnic communities in Ile Ife, Nigeria. *Nutr Health*. 1996;11(2):115-126.
  26. Prior E, Santhakumaran S, Gale C, *et al*. Breastfeeding after cesarean delivery: a systematic review and meta-analysis of world literature. *Am J Clin Nutr*. 2012;95:1113-1135.
  27. Ekström A, Widström A-M and Nissen E. Duration of Breastfeeding in Swedish Primiparous and Multiparous Women. *J Hum Lact* 2003;19(2):172-178.
  28. Olang B, Heidarzadeh A, Strandvik B, Yngve A. Reasons given by mothers for discontinuing breastfeeding in Iran. *International Breastfeeding Journal*. 2012;7(7).

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