



## **Patterns and Barriers of Breast Feeding among Lactating Females in Kafr Esam Rural Health Unit**

**Rizk Fathy Elhousiny<sup>1\*</sup>, Noha M. Elghazally<sup>2</sup>, Abdelaziz Farouk Aldeeb<sup>2</sup>  
and Elsayed Abdel-Rahman Elkafas<sup>2</sup>**

<sup>1</sup>Ministry of Health, Tanta, Egypt.

<sup>2</sup>Public Health and Community Medicine, Faculty of Medicine, Tanta University, Tanta, Egypt.

### **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

### **Article Information**

DOI: 10.9734/JAMMR/2021/v33i1631020

#### **Editor(s):**

(1) Dr. Rameshwari Thakur, Muzaffarnagar Medical College, India.

#### **Reviewers:**

(1) Shweta, Delhi University, India.

(2) Jayendra Gohil, MKBU, India.

Complete Peer review History: <https://www.sdiarticle4.com/review-history/70941>

**Original Research Article**

**Received 16 May 2021**

**Accepted 21 July 2021**

**Published 27 July 2021**

### **ABSTRACT**

**Background:** Breastfeeding is considered as one of the major public health strategies for improving infant and child morbidity and mortality, as well as decreasing maternal morbidity because of the wide range of benefits of exclusive breastfeeding to the mother and infant. The aim of the work was to identify the frequency of exclusive breastfeeding, patterns and barriers of breastfeeding.

**Methodology:** A cross-sectional study was carried out on 400 lactating women from July 2019 up to Sep. 2020 at Kafr Esam Rural Health Unit in Gharbia Governorate, Egypt. Data were collected by a self-administrated questionnaire.

**Results:** The frequency of exclusively breastfeeding women was 44.75%, while 30.25% were mixed breastfeeding and formula and 25% were using formula only. The barriers of exclusive breastfeeding were: had low breast milk supply (20.25%), mothers work related (9.5%), infant illness (9.25%), mother illness (8%), sore and cracked nipples (7%), easier bottle feeding (6.5%), more than one problem (6.25%), mother on medication (4.75%), 4.5% had baby crying too much, 2.25% had breast infection, 2.25% didn't like breastfeeding, 1.25% had pressure from family, 0.75% were fasting in Ramadan and no patient said that husband didn't support breastfeeding.

\*Corresponding author: E-mail: [rizqfathyrizq@gmail.com](mailto:rizqfathyrizq@gmail.com);

**Conclusions:** The prevalence of exclusive breastfeeding for the first 6 months of infant's life was accepted (44.75%) but needs more improvement and multiple barriers were present. Management of breastfeeding barriers and their problems. Encourage pregnant women for vaginal delivery. Initiate and support breastfeeding campaigns by mass media annually define a national day for breastfeeding. Further studies are needed.

*Keywords: Patterns; barriers; exclusive breast feeding; lactating women.*

## 1. INTRODUCTION

Breastfeeding is considered as one of the major public health strategies for improving infant and child morbidity and mortality, as well as decreasing maternal morbidity because of the wide range of benefits of exclusive breastfeeding to the mother and infant. The positive aspects of breastfeeding include advantages in nutrition, promotion of infant growth, and development and improvements to social, psychological, and educational interactions. Moreover, exclusive breastfeeding has a wide range of health benefits to the infant and mother have been well documented in various evidence-based research studies [1].

The patterns of feeding are categorized into four groups: a) Exclusively breastfeeding: infants' only breastfed since birth; no water, formula or liquid supplements b) Predominately breastfeeding: infants receiving breast-milk and water since birth c) Complementary feeding: infants who were mainly breast fed, but infant formula and other liquid or nondairy foods were included in their diet d) Bottle- feeding: infants who received only formula feeding [2].

Although the value of breastfeeding is well understood, there are many barriers that can make it difficult for women to start and continue breastfeeding. It has been reported that early breastfeeding discontinuation barriers included; lack of paid maternal leave, false maternal beliefs and perceptions, such as insufficient breast milk and painful breastfeeding associated with incorrect infant position and latch [3]. Maternal characteristics such as age, income, education, knowledge and ethnicity have been associated with the initiation and continuation of exclusive breast feeding [4].

The lack of support, encouragement, and education from healthcare professionals, family, and friends can become barriers to exclusive breastfeeding [5]. So identifying the barriers to exclusive breastfeeding will help to develop appropriate clinical practice guidelines to

overcome those hindrances associated with discontinuation of breastfeeding during the early postpartum period. One of the key strategies in promoting breastfeeding to childbearing women is antenatal breastfeeding education [6,7]. For our knowledge there are few researches about the exclusive breast feeding in the first 6 months in Egypt; its patterns and barriers. Therefore, we hope this research filled this gap.

The aim of the work is to identify 1) The frequency of absolute (exclusive) breast feeding among the lactating mothers in the first 6 months of infant age 2) The breast feeding barriers and patterns among the lactating mothers.

## 2. METHODOLOGY

### 2.1 Study Design

A cross-sectional study was carried out on 400 lactating women in Kafr Esam rural health unit.

#### 2.1.1 Study duration

It was conducted from the start of July 2019 up to September 2020.

#### 2.1.2 Setting of the study

This study was carried out in Kafr Esam rural health unit on all lactating women attending the center. This center was chosen due to easy accessibility and easy administrative approval. We get permission from administrative head of Kafr Esam Rural Health Unit and from Gharbia Health Directorate. The lactating women were coming at this center for follow up the pregnancy, family planning, vaccination and follow up the babies during the period of collecting the data.

### 2.2 The Study Sample

All the lactating women attending Kafr Esam rural health unit with their infant aged six month or more during the study period were included in the study. Any person with the infant except the mother were excluded from the study.

## 2.3 Tool of the Study

The data were collected by face to face interview through a structured, valid and reliable questionnaire which consists of the following sections:

**Section 1 - Sociodemographic data include:** mother's age, educational level, occupation, residence and husband educational level, husband occupation.

**Section 2 - Medical history of** chronic diseases and diseases associated with pregnancy.

**Section 3 - Family history of breast feeding of** mothers, sisters and other relatives.

**Section 4 - Breastfeeding history:** information about breastfeeding whether private doctor, midwife, health staff or mass media.

**Section 5 - Breastfeeding Practice:** the current feeding practice (**exclusive** breastfeeding (only breast milk), breast milk and formula, formula feeding only, whether intend on breastfeeding in future, how long after birth did you first hold your baby? Why was your baby given the supplement(s)?

**Section 6 - Breastfeeding barriers:** whether any of these problems with breastfeeding present or not? low milk supply, breast infection, on medication, personal illness, illness of infant, baby was crying too much, bottle feeding is easier, pressure from family, didn't like breastfeeding, sore, cracked nipple(s), husband didn't support breastfeeding, fasting in Ramadan, work related.

## 2.4 Statistical Analysis

Sorting and analysis of data were performed by using statistical package for social sciences (SPSS) version 26 (SPSS-v26).  $P \leq 0.05$  was adopted as level of significance.

## 3. RESULTS

Table 1 Illustrates the age of the participants that ranged from 19-43 years with mean value  $27.24 \pm 6.59$  years. There were 43% participants aged from 19-24 years, 41.5% patients aged from 25-35 years and 62 (15.5%) participants aged greater than 35 years. As regard to educational level of the mother, 12% were illiterate, 43.5% were read and write, 27.25% were secondary education and 17.25% were high education. As regard to occupation of the mother, 64.5% were housewife, 17.5% were manual/technical workers, 11.25% were employee and 6.85% were professional. As regard to the residence, 367 (91.75%) were rural and 33 (8.25%) were urban. Table 2 Regarding breastfeeding health education source, 53.75% get the information from rural health unit staff, 19.75% by private doctor, 18.75% from hospital staff, 6% through mid wife, and 1.75% get it from mass media. Three fourths (74.50%) reported rooming in after birth, among 47.5% the rural health unit staff had role for breast feeding, while 23.5% were encouraged by the regular sessions of rural health unit staff and 3.25% were encouraged by the role of social media. Fig 1 Shows current feeding practice, 44.75% were exclusively breastfeeding, 30.25% were mixed breast milk and formula and 25% were formula only. Fig 2 Shows opinion of best feeding, 72.75% see breastfeeding only is the best, 10.75% prefer mixed breastfeeding and formula feeding, 3.75% see formula feeding only is better, where 12.75% see breastfeeding and formula are both equal. Table 3 Illustrates problems with breastfeeding, 20.25% had low milk supply, 9.5% were work related, 9.25% had illness of infant, 8% had personal illness, 7% had sore and cracked nipples 6.5% see bottle feeding is easier, 4.75% were on medication, 4.5% had baby crying too much, 2.25% had breast infection, 2.25% didn't like breastfeeding 1.25% had pressure from family. Regarding to future contact for help, 43.5% would seek for help if they have problems with breastfeeding.

**Table 1. Personal data of the participants**

	Variable	Participants (n = 400) No. (%)
Age (years) of the mother	Mean $\pm$ SD	$27.24 \pm 6.59$
	Range	19-43
	19-24	172 (43%)
	25-35	166 (41.5%)
Educational level of the mother	>35	62 (15.5%)
	Illiterate	48 (12%)
	Read and write	174 (43.5%)

	<b>Variable</b>	<b>Participants (n = 400) No. (%)</b>
Occupation of the mother	Secondary education	109 (27.25%)
	High education	69 (17.25%)
	Housewife	258 (64.5%)
	Manual/technical workers	70 (17.5%)
	Employee	45 (11.25%)
Educational level of the husband	Professional	27 (6.85%)
	Illiterate	45 (11.25%)
	Read and write	166 (41.5%)
Occupation of the husband	Secondary education	106 (26.5%)
	High education	83 (20.75%)
	Unemployed	45 (11.25%)
	Manual/technical workers	166 (41.5%)
	Employee	159 (39.75%)
Residence	Professional	30 (7.5%)
	Rural	367 (91.75%)
	Urban	33 (8.25%)

**Table 2. Breastfeeding history of the participants**

	<b>Variable</b>	<b>Participants (n = 400) No. (%)</b>
Breastfeeding health education	Private doctor	79 (19.75%)
	Midwife	24 (6%)
	Hospital staff	75 (18.75%)
	Rural health unit staff	215 (53.75%)
	Mass media	7 (1.75%)
Rooming in after birth		298 (74.5%)
Role of rural health unit staff in breastfeeding		190 (47.5%)
Regular sessions of rural health unit staff in breastfeeding		94 (23.5%)
Role of social media in breastfeeding		13 (3.25%)

**Table 3. Breastfeeding barriers of the participants**

	<b>Variable</b>	<b>Participants (n = 400) (%)</b>
Problems with breastfeeding	Low milk supply	(20.25%)
	Breast infection	(2.25%)
	On medication	(4.75%)
	Personal illness	(8%)
	Illness of Infant	(9.25%)
	Baby was crying too much	(4.5%)
	Bottle feeding is easier	(6.5%)
	Pressure from family	(1.25%)
	I didn't like breastfeeding	(2.25%)
	Sore, cracked nipple(s)	(7%)
	Fasting in Ramadan	(0.75%)
	Work related	(9.5%)
More than one problem	(6.25%)	
<b>Seeking for help</b>		<b>(43.5%)</b>
Future contact for help	Private doctor	(3.25%)
	Hospital or clinic	(6.5%)
	RHU staff	(20.5%)
	Family and/or friends	(13.25%)

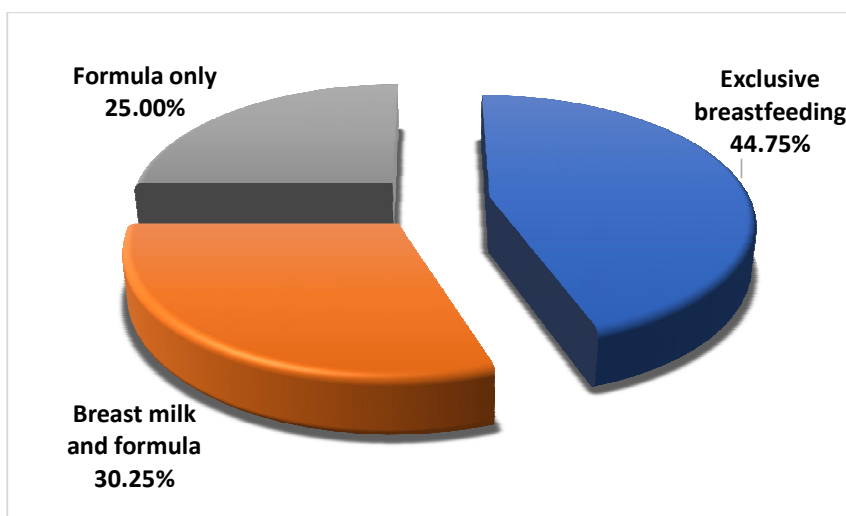


Fig. 1. Current feeding practice of the participants

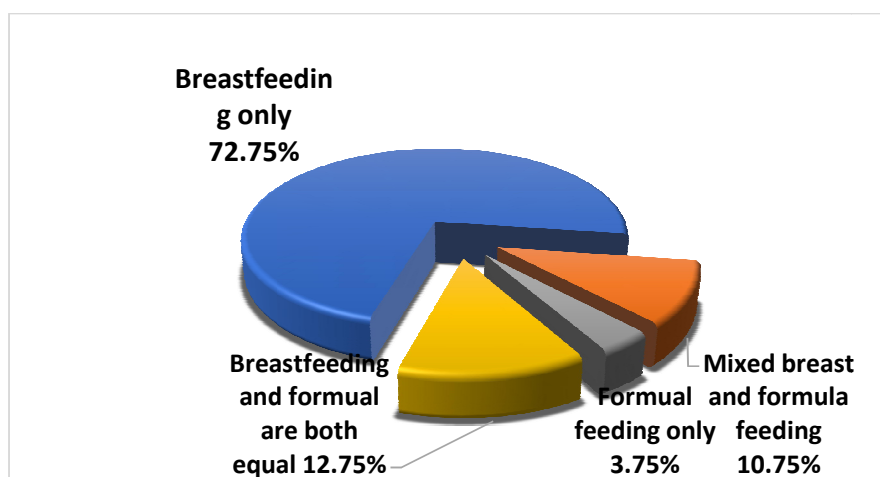


Fig. 2. Opinion of breastfeeding of the participants

#### 4. DISCUSSION

Breastfeeding importance is to increase protection against childhood infections, increase in infant intelligence, and probable reductions in overweight and diabetes. For nursing women, breastfeeding gives protection against breast cancer and it improves birth spacing, and it might also protect against ovarian cancer and type II diabetes [8].

The current study showed that 44.75% were exclusively breastfeeding, 30.25% were mixed breastmilk and formula and 25% were formula only. This was near the percentage of a study in Nepal (2019) and in Cameroon (2018) which

indicated that 45% and 45.2% respectively of children under six months were exclusively breastfed [9,10]. Another study done in Ethiopia in 2020 reported that 45.8% of the mothers were exclusively breast-fed their infant [11]. Also, Kandeel et al. [12] showed that 49.7% were exclusive breastfeeding. This is still below the 90% level recommended by the WHO [13]. The present study found that first holding of the baby was 23.5% at the first hour which is higher than the result of a study done in 2016 [14] which found that only 20.1% initiated breastfeeding within the first hour after labor. But it is near the percentage of Egypt demographic and health survey 2014 (EDHS) which was 27% [15]. While it was lower than the percentage of a Sudanese study, 2008 [16] as more than half of mothers

(54.2%) initiated breastfeeding after one hour from delivery.

The current study, 47.5% had their information about breastfeeding from rural health unit staff, 23.5% were encouraged by the regular sessions of RHU staff, and 3.25% were encouraged by the role of social media. This was lower than that reported from a study done in Ethiopia in 2020 [11] as 76.9% had heard about exclusive breastfeeding and the most cited source of information was health facility 70.4%, media 33.1%, Family/friends/relatives 22.4% and from other sources 0.7%. Difference in cultures may be the reason for this difference.

In our study, most of the participant mothers reported nipple fissures and soreness as a cause of not breastfeeding exclusively, which arise because of wrong attachment of the baby to the breast during breastfeeding (sucking the nipple area of only). This results in a negative experience with breastfeeding which is followed by a decrease in mothers' confidence to wet-nurse their infants, hence, causing early cessation of breastfeeding. These results are consistent with a study done in the United States [17] which demonstrated that many women encounter problems such as cracked nipples and breast engorgement.

In our study, insufficient milk supply was a main obstacle to breastfeeding. This was in agreement with a study done in Ethiopia in 2020 [11], breast milk alone was not enough in  $\frac{3}{4}$  of cases. This is in line with the a Japanese study, 2008 [18] which showed that half of mothers gave an inadequacy of breast milk as reason for giving formula before six months. This finding may attribute to many women consider infant satisfaction cues as their main indication of milk supply. Many women also do not evaluate actual milk supply.

According to the present study findings, the majority of the women had barriers influence the initiation of breastfeeding within one hour of birth, as tiredness, perception of insufficient milk production, pain because of labor and mothers don't have enough knowledge about the initiation time of breast feeding. These findings are similar to the findings of a study done in Athens, 2011 [19] which stated that pain of mothers and perception that infants were not receiving adequate amounts of breast milk had a negative impact on breastfeeding decisions.

## 5. CONCLUSION

The prevalence of exclusive breastfeeding for the first six months of infant's life was accepted but needs more improvement. The breastfeeding barriers were: low milk supply, personal illness, Infant illness, sore cracked nipple(s), bottle feeding is easier, and work related. Health education sessions to encourage breastfeeding among mothers and increasing mothers' knowledge about breastfeeding benefits. Management of breastfeeding barriers and their problems through full history and physical examination of the mother, the baby and technique of breastfeeding is essential in diagnosis of breastfeeding problems and early intervention to prevent breastfeeding discontinuation.

## ETHICAL APPROVAL AND CONSENT

As per international standard or university standard written ethical approval has been collected and preserved by the author(s). The consent of those who participate in the study was obtained and those who refuse to participate were excluded. Privacy and Confidentiality were guaranteed throughout the study.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

## REFERENCES

1. Dieterich CM, Felice JP, O'Sullivan E and Rasmussen KM. Breastfeeding and health outcomes for the mother-infant dyad. *Pediatr Clin North Am.* 2013;60(1):31-48.
2. Radwan H. Patterns and determinants of breastfeeding and complementary feeding practices of Emirati Mothers in the United Arab Emirates. *BMC Public Health.* 2013;13:171.
3. Moore ER and Coty MB. Prenatal and postpartum focus groups with primiparas: breastfeeding attitudes, support, barriers, self-efficacy, and intention. *J Pediatr Health Care.* 2006;20(1):35-46.
4. Taveras EM, Li R, Grummer-Strawn L, Richardson M, Marshall R, Rego VH, et al. Opinions and practices of clinicians associated with continuation of exclusive breastfeeding. *Pediatrics.* 2004;113(4): e283-90.

5. Brown A, Raynor P and Lee M. Young mothers who choose to breast feed: the importance of being part of a supportive breast-feeding community. *Midwifery*. 2011;27(1):53-9.
6. Brown A, Raynor P and Lee M. Healthcare professionals' and mothers' perceptions of factors that influence decisions to breastfeed or formula feed infants: a comparative study. *J Adv Nurs*. 2011; 67(9):1993-2003.
7. Wilson-Stronks A, Lee KK, Cordero CL, Kopp AL and Galvez E. One size does not fit all: Meeting the health care needs of diverse populations. Oakbrook Terrace, IL: The Joint Commission; 2008.
8. Pevzner M and Dahan A. Mastitis While Breastfeeding: Prevention, the Importance of Proper Treatment, and Potential Complications. *J Clin Med*. 2020; 9(8):2328.
9. Bhandari MS, Manandhar P and Tamrakar D. Practice of Breastfeeding and its Barriers among Women Working in Tertiary Level Hospitals. *JNMA J Nepal Med Assoc*. 2019;57(215):8-13.
10. Tambe BA, Mimboe CS, Nchung JA, Bakwo CB, Nyobe EC, Pauline N, et al. The determinants of exclusive breastfeeding in Cameroon, Sub-Saharan Africa. *Trends Gen Pract*. 2018;1(3):1-6.
11. Mulatu Dibisa T and Sintayehu Y. Exclusive Breast Feeding and Its Associated Factors Among Mothers of <12 Months Old Child in Harar Town, Eastern Ethiopia: A Cross-Sectional Study. *Pediatric Health Med Ther*. 2020;11: 145-52.
12. Kandeel WA, Rabah TM, Zeid DA, El-Din EMS, Metwally AM, Shaalan A, et al. Determinants of Exclusive Breastfeeding in a Sample of Egyptian Infants. *Open Access Maced J Med Sci*. 2018; 6(10):1818-23.
13. Organization WH. Acceptable medical reasons for use of breast-milk substitutes. World Health Organization; 2009.
14. Mohamed S, Zaki NA-E and Thabe A. Barriers of Initiation and exclusive breast feeding among infants. *IOSR Journal of Nursing and Health Science*. 2016;5(2): 01-10.
15. El-Zanaty FH and Way AA. Egypt demographic and health survey, 2006. Ministry of Health and Population; 2006.
16. Haroun HM, Mahfouz MS and Ibrahim BY. Breast feeding indicators in Sudan: a case study of Wad Medani town. *Sudanese J Public Health*. 2008;3(2):81-90.
17. Straub B, Melvin C and Labbok M. A descriptive study of Cambodian refugee infant feeding practices in the United States. *Int Breastfeed J*. 2008;3:2.
18. Otsuka K, Dennis CL, Tatsuoka H and Jimba M. The relationship between breastfeeding self-efficacy and perceived insufficient milk among Japanese mothers. *J Obstet Gynecol Neonatal Nurs*. 2008; 37(5):546-55.
19. Raffle H, Ware L, Borchardt A and Strickland H. Factors that influence breastfeeding initiation and persistence in Ohio's Appalachian region. Athens: Boinovich School of Leadership and Public Affairs at Ohio University; 2011.

© 2021 Elhousiny et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

*Peer-review history:*  
*The peer review history for this paper can be accessed here:*  
<https://www.sdiarticle4.com/review-history/70941>