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Factors affecting exclusive breast feeding practices in Benghazi, Libya

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ABSTRACT

Introduction: Breastfeeding is ideally suited to the physiological & psychological needs of infants everywhere. WHO recommends exclusive breast-feeding during the first six months of baby's life. This study aims to assess the rate of exclusive breastfeeding among infants of Libyan mothers and factors affecting it.

Method : A descriptive study (cross – sectional study) was conducted on 314 mothers in Maternal & Child clinic in Benghazi during the period from 1-11- 2016 to 30-4-2017

Results: 38% of mothers were exclusive breastfeeding their infants during the first six months of life. Cesarean section, usage of pacifier for baby and mother's working status were negatively affects exclusive breastfeeding practices. 22% of mothers have no information about benefits of breastfeeding.

Conclusions and recommendations: Early starting of breast-feeding will affect positively the practice & continuity of exclusive breastfeeding. Nutritional care for pregnant and lactating women is recommended in order to ensure sufficient milk supply to the baby.

This study recommends baby friendly hospitals to be established in Libya.

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1. Introduction

Exclusive Breastfeeding "EBF" has been defined by the World Health Organization "WHO" as the infant has receives only breast milk from his/her mother or a wet nurse, or expressed breast milk, and no other liquids or solids, with the exception of drops or syrups consisting of vitamins, mineral supplements or medicines) (WHO, 2015). WHO recommends EBF for the first six months of life, and thereafter continued breastfeeding for two years or longer along with complementary food (WHO, 2017).

Benefits of breastfeeding to the child include a decrease of the incidence and/or severity of many infectious diseases such as diarrhea, otitis media, urinary tract and respiratory tract infections. EBF also found to decrease the incidence of overweight, obesity, type 1 diabetes mellitus, and asthma (Victoria *et al*., 2016).
EBF also increases the maternal-infant bonding. In the long run, it may decrease the risk of breast and ovarian cancers, and osteoporosis in the mother (Liu & Newburg, 2013).

Several studies have described many factors associated with the intention and practice of EBF (Radwan, 2013; Al-Akour *et al*., 2014; El Shafei & Labib, 2014; Boccolini *et al*., 2015; Haghighi & Taheri, 2015; Alyousefi *et al*., 2017). These factors include maternal age, mother's education level & occupation, number of children, mother's knowledge about the benefits of breastfeeding, birth conditions, baby's gender and the attitude towards breastfeeding.

There were three previous studies conducted in Benghazi (Abudejaja *et al*., 1982; Balo *et al*., 1997; Shembesh *et al*.,1997), described the type of breast feeding and the demographic characters of the mothers, none of them address the possible factors that may affect the initiating and continuity of exclusive breast feeding. This study aims to assess the rate of exclusive breastfeeding among infants of Libyan mothers and factors affecting it.

2. Subjects & methods

2.1 Study period: From 1-11- 2016 to 30-4-2017.

2.2 Study place: Maternal and child health (MCH) clinic at Al-Hadaeq health center, in Benghazi

2.3 Study sample: All the Libyan lactating mothers who have infants aged six months and were attending for vaccination them at the MCH clinic during the study period.

2.4 Study design: A descriptive study (cross – sectional study).

2.5 Study tool and method of data collection: A questionnaire with 17 questions was used to collect data, information regarding demographics, birth conditions, baby characters, feeding methods, reasons for initiating bottle-feeding, duration of exclusive breastfeeding and mother's knowledge about the benefits of breastfeeding, including sources of information were collected. Data were entered and analyzed using Statistical Package for the Social Sciences (SPSS) program (version 23), for calculating the number, the percentage and chi-square test, using the level of significance $P<0.05$.

3. Results

A total of 376 lactating mothers were attending the MCH clinic at Al-Hadaeq health center, in Benghazi during the study period, but only 314 mothers agreed to participate in the study. (Response rate =84%). Results showed that 38% of mothers practiced exclusive breastfeeding their infants (Fig. 1).

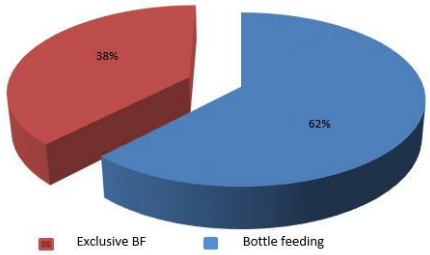

Fig. 1. Distribution of the mothers according to the babies feeding practices.

Chi square test showed a significant association between mother's knowledge and exclusive breastfeeding practices, while work of mother was strongly associated with bottle feeding practices (Table 1).

Table 1
Demographic Determinants of Exclusive breastfeeding

Demographic Determinants	EBF N=120	Bottle Feeding N=194	χ^2 Value
Age of mother			
< 20 yr.	8	9	χ2=2.33 *P* > 0.05
20-30 yr.	53	75	
30-40 yr.	40	80	
> 40 yr	19	30	
Parity			
Primiparous	51	66	χ2= 2.28 *P* > 0.05
Multiparous	69	128	
Education of mother			
Primary	1	3	χ2= 1.68 *P* > 0.05
Preparatory–Secondary	56	103	
University +	63	88	
Mothers information about benefits of EBF			
Mother have	106	140	χ2= 11.4 ***P*<0.01
Mother does not have	14	54	
Employment of mother			
Working	34	143	χ2= 62.07 ****P*<0.001
Not working	86	51	

** *P* < 0.01 *highly significant* *** *P* < 0.001 *very highly significant*

There was a significant association between cesarean section and bottle-feeding practices (Table 2).

Table 2.
Birth conditions determinants of Exclusive Breastfeeding

Birth conditions determinants	EBF N=120	Bottle Feeding N=194	χ^2 Value
Made of delivery			
Normal	98	129	χ2= 8.5 **P*< 0.05
Cesarean section	22	65	
Discharge the mother from hospital			
During 24 hrs after deliver	84	125	χ2= 1.03 *P* > 0.05
>24 hours	36	69	
Birth weight			
< 2.5 kg.	8	6	χ2= 2.22 *P* > 0.05
> 2.5 kg.	112	188	
Gestational age			
Full term	114	189	χ2= 1.28 *P* > 0.05
Pre-term	6	5	
Sex of baby			
Male	66	92	χ2= 1.70 *P* > 0.05
Female	54	102	

* P < 0.05 = *statistically significant*

Early initiating of breastfeeding after delivery, frequency according to baby need and usage of a pacifier were strongly affected the breastfeeding practices (Table 3).

Table 3.
Practice determinants of exclusive breastfeeding

Practice Determinants	EBF N=120	Mixed Feeding N=194	χ^2 Value
Time of initial breast feedings			
Immediately after delivery	48	39	χ2=14.6 ***P*<0.01
> 2 hours	72	155	
Frequency of breast feeding			
According to baby need	77	96	χ2= 6.46 **P*<0.05
According to schedule	43	98	
Using pacifier			
Yes	39	107	χ2= 15.29 ***P*<0.01
No	81	87	

* *P* < 0.05 = *statistically significant* ** *P* < 0.01 *highly significant*

Almost half of the participated mothers (49%) who choose bottle-feeding for their babies had the reason of breast milk insufficiency (Table 4).

Table 4
Reasons of mothers for choosing bottle feeding

Reason	Number N =194	Percentage (%)
Breast milk insufficiency	96	49
Caesarian section	62	32
Mother return to work	16	8
Disease of mother	5	3
Disease of baby	4	2
Baby refuse breast milk	4	2
Breast inflammation	4	2
Mother become pregnant	3	2

4. Discussion

Analysis of the demographic characteristics of the mothers participated in this study showed that their age range from 17years to 46 years, with a mean age of (30±7.3) years. In contrast with the results of the previous studies conducted in Benghazi (Abudejaja *et al*., 1982; Balo *et al*., 1997; Shembesh *et al*., 1997), where the mothers were younger.

The rate of EBF practices among the mothers under study was (38%), which is higher rate than those shown in Benghazi's previous studies (Abudejaja *et al*., 1982; Balo *et al*., 1997; Shembesh *et al*., 1997), Saudi Arabia (El-Gilany *et al*., 2011; Alyousefi *et al*., 2017), Syria (Al-Akour *et al*., 2014), Lebanon (Batal *et al*., 2005) and Egypt (El Shafei & Labib, 2014). This high rate can be explained by economic causes in Libya after war.

The age of mother, mother's education, mother's working status, parity, mode of delivery, duration of staying in the hospital after delivery, infant's sex, gestational age and birth weight, time of initiating breastfeeding, frequency and usage of a pacifier were possible factors affecting the mothers EBF practices, which analyzed in exclusive breastfed group and the bottle feeding group to find the significant factors.

Although age of the mother (the older mothers have more experience), parity and education were proved in other studies, (Musaiger, 2000; Hallbauer *et al*., 2002; Dubios & Girard, 2003; Knonborg & Vaeth, 2004; Batal *et al*., 2005; Al – Shoshan, 2007; Greiner, 2014), to have positive effects on EBF practices, but in this study have no effect. Mother's knowledge about benefits of breastfeeding, early initiating of breastfeeding after delivery and frequency according to baby need were positively affect the mother's practice of EBF which are similar to what shown in other studies (Musaiger, 2000; Hallbauer *et al*., 2002; Al – Shoshan, 2007; Al-Akour *et al*., 2014; Alyousefi *et al*., 2017). While cesarean section, usage of pacifier for baby and mother's working status had a negative impact on EBF practices, which are also shown in other studies (Musaiger, 2000; Batal *et al*., 2005; Kair *et al*., 2013).

In agreement with other studies, 49% of those mothers who choose bottle feeding their babies had the reason of breast milk insufficiency, which is usually due to fault initiating of breastfeeding (Balo *et al*., 1997; Batal *et al*., 2005; Greiner, 2014; Ojong *et al*., 2015).

Thirty nine percent of the mothers received their information about breastfeeding from friends and relatives, while 22% have no information. Hospitals and health centers were less informative (15%), and this may be due to ignorance, under-qualified health workers providing advice and lack of baby friendly hospitals in Libya.

5. Conclusions

Exclusive breastfeeding rate was higher than before in Benghazi, and the study found that mother's knowledge about benefits

of breast feeding, early initiating of breastfeeding after delivery and frequency according to baby need were positively affect the EBF practices , while cesarean section, working status of the mother and usage of a pacifier have a negative impact on exclusive breast feeding practices.

Hospitals and health centers were less informative for the mothers about breastfeeding practices. Insufficiency of breast milk was the main reason for choosing bottle-feeding.

6. Recommendations

1- *Nutritional care for pregnant and lactating women is recommended in order to ensure sufficient milk supply to the baby.*

2- *Health education for pregnant women about the benefits of breastfeeding.*

3- *Increasing knowledge and counseling skills of health workers and providing additional written instructions about breastfeeding to mothers.*

4- *The study recommends baby friendly hospitals to be established in Libya.*

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