

## Prevalence of Exclusive Breastfeeding and Some of Its Determinants in Hilla City, 2018

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### ABSTRACT:

#### BACKGROUND:

Health organizations recommended that mothers exclusively breast feed infants for the first six months of life. Breastfeeding is a natural food that serves as a complete source of infant nutrition for the first six months of life. It contains all the necessary nutrients provided in a bioavailable and easily digestible form, protecting both mothers and children against illnesses and diseases with immunological properties. Place of delivery in many study showed positive effect of rate of exclusive breast feeding.

#### OBJECTIVE:

The study aimed to estimate the prevalence of breastfeeding in Hilla city and the rate of delivery in different sites and to identify relationship between exclusive breastfeeding habit and place of delivery.

#### PATIENTS AND METHODS:

This cross sectional study was conducted between the first of April and the first of July of 2018, in which 520 mothers were included and attending vaccination unit in PHCC in Hilla city. A self-constricted questionnaire form was used to collect the required data. Data entry and analysis was done by using SPSS program version 23.

#### RESULTS:

The mean age of mother's was  $26 \pm 6.1$  years, the percentage of exclusive breast feeding was 49.6%, the percent of delivery in the baby friend hospital was 30.6%. Mother age, type of delivery, who attended the delivery, and the type of feeding used by the mother in her previous infant was the factors that contributed for practicing exclusive breastfeeding.

#### CONCLUSION:

The prevalence of exclusive breast feeding in Hilla city is fair and agrees with the rate reported in other parts in Iraq.

**KEYWORDS:** Baby friendly hospital, Hilla, Iraq

### INTRODUCTION:

Breastfeeding (BF) is the normal way of providing young infants with the nutrients they need for healthy growth and development. Virtually all mothers can breastfeed, provided they have accurate information, and the support of their family, the health care system and society at large<sup>(1)</sup>. The World Health Organization (WHO) also recommends exclusively breastfeeding (EBF) up to six months of age with continued breastfeeding along with appropriate complementary foods up to two years of age or beyond<sup>(1)</sup>.

Factors influencing breastfeeding have been investigated worldwide, and found the barriers to

breastfeeding were multifactorial. Various factors have been shown associated with both the initiation and duration of breast feeding, the advanced age, higher maternal educational level, higher socioeconomic status, BF education, social support, and an infant with birthweight over 3 kg and >38 weeks gestation have a positive effect on breast feeding<sup>(2,3)</sup>. The belief of mothers that their milk is inadequate, the failure to provide adequate information and support from healthcare workers, breast problems due to incorrect BF, and the increased use of bottle-feeding/pacifiers are important causes for early discontinuation of breast feeding<sup>(4,5)</sup>.

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## EXCLUSIVE BREASTFEEDING

The hospital related barriers, among them, caesarean section and hospital practices have major importance, since mothers have little or no power to decide if they are going to breastfeed or not their newborns<sup>(6)</sup>. In response to that, WHO and UNICEF launched the Baby-friendly Hospital Initiative (BFHI) to help motivate facilities providing maternity and newborn services worldwide. The initiative is a global effort to implement practices that protect, promote and support breastfeeding<sup>(7)</sup>.

This study aimed to estimate the prevalence of breastfeeding in Hilla city, the rate of delivery in different sites, and to identify relationship between exclusive breastfeeding habit and place of delivery.

### SUBJECTS AND METHODS:

Cross-sectional study was conducted between the first of April and the first of July of 2018 among mothers attending the vaccination unit in six PHCCs in Hilla city center, Iraq. Three primary health care centers were chosen randomly by lottery method from the two sectors in Hilla city. A consecutive sample during the time frame of data collection was adopted. The mothers who had an infant mostly of two to six months were asked to participate in this study. Sample size of eighty seven mothers from each health care center forming a total sample of 520 mothers was included in this study. One tool used to collect the required data and this tool was self-constructed questionnaire form prepared to collect information from the participants regarding selected variables.

The data was collected by direct interview with participants. The first part of the questionnaire included information about socio-demographic characteristics of child and his /her family and included nine questions. The second part includes information about obstetrical history of the mother and feeding practices towards her baby and includes seven questions. This study take approval of the ethical committee from the Iraqi board for medical specialization, Babylon health directorate and health sectors. The purpose of study was explained to participant to get their verbal consent. Data was analyzed using statistical package for the social sciences computer software program (SPSS version 23).

Descriptive statistics presented as numbers, percentages, and continuous variables were expressed as mean  $\pm$  standard deviation. Chi-square test was used to find the association between categorical variables. The P-value below or equal to 0.05 was considered to be statistically significant.

### RESULTS:

A total of 520 mothers were enrolled in this study, their mean age was 26  $\pm$ 6.1 years. The mean age of their baby was 3.2 $\pm$ 1.3 months, only 5.8% (30) of mothers were illiterate and 3.5% (18) of fathers were illiterate. The type of feeding for their last baby was 83(16%) on bottle feeding, 179 (34.4%) on mix feeding and 258(49.6%) on exclusive breast feeding, figure 1.

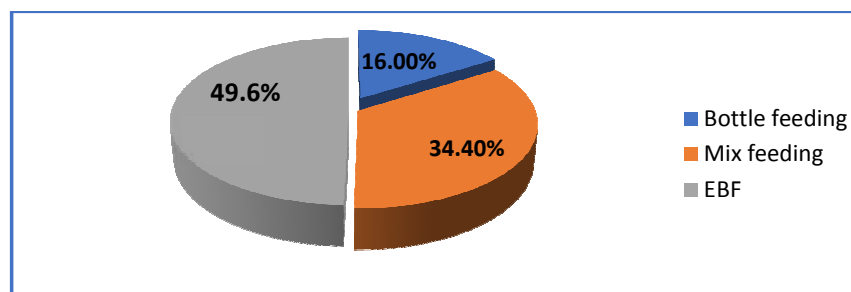
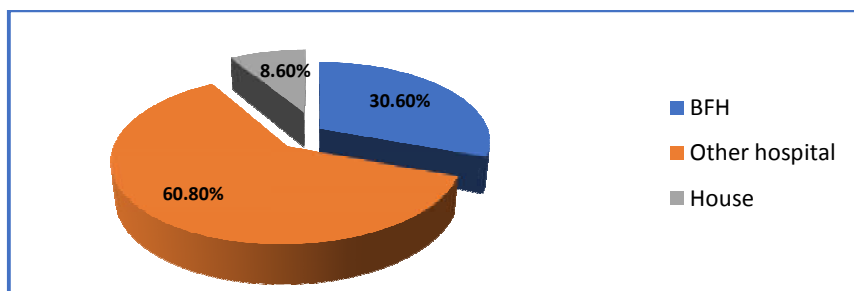


Figure 1: The distribution of type of baby feeding among the participants.

Regarding the place of delivery, 159 (30.6%) of participants were delivered in baby friend hospital, while 316 (60.8%) of participants were

delivered in other hospitals and only 45 (8.6%) of participants had home deliveries, figure 2.

## EXCLUSIVE BREASTFEEDING



**Figure 2: The distribution of participants according to place of delivery.**

The high percentage of mother who fed their baby EBF was found in mother with age less than 20 years (60.6%) and there were a significant statistical association between type of feeding and age of mother (P=0.039).

There were no significant statistical association between type of feeding and mother education (P=0.06), residency (P=0.122), occupation (P=0.24) and monthly income (P= 0.31),table 1.

**Table 1: Relation of some socio-demographic variables to type of feeding**

Variable	Type of feeding		Total No.(%)	P value
	EBF(258)	Non EBF(262)		
Age of mother	<20 years	40(60.6%)	26(39.4%)	0.039*
	20-24 years	90(54.5%)	75(45.5%)	
	25-29 years	65(43%)	86(57%)	
	30-34 years	29(39.2%)	45(60.8%)	
	35-39 years	29(55.8%)	23(44.2%)	
	≥ 40 years	5(41.7%)	7(58.3%)	
Mother education	Illiterate	20(66.7%)	10(33.3%)	0.06
	Primary school	135(51.5%)	127(48.5%)	
	Secondary school	56(49.1%)	58(50.9%)	
	College	47(41.2%)	67(58.8%)	
Father education	Illiterate	11(61.1%)	7(38.9%)	0.17
	Primary school	119(49.2%)	123(50.8%)	
	Secondary school	89(53.9%)	76(46.1%)	
	College	39(41.1%)	56(58.9%)	
Monthly income	<200 ID	34(48.6%)	38(51.4%)	0.313
	200-499 ID	132(54.3%)	111(45.7%)	
	500-799 ID	50(42.7%)	67(57.3%)	
	800-1099 ID	28(47.5%)	31(52.5%)	
	≥1100 ID	14(45.2%)	17(54.8%)	
Residence	Rural	68(55.7%)	54(44.3%)	0.122
	Urban	190(47.7%)	208(52.3%)	
Employment	Student	4(28.6%)	10(71.4%)	0.24
	Unemployed	238(50.5%)	233(49.5%)	
	Employee	16(45.7%)	19(54.3%)	

\* Significant relation.

## EXCLUSIVE BREASTFEEDING

The percentage of mother who fed their baby EBF in BFH was 43.4 % ( 69) and there were no significant statistical association between type of feeding and place of delivery (P=0.06). The percentage of mother who fed their baby EBF was 42.2%(86) in mother underwent C/S and there were a significant statistical association between type of feeding and mode of delivery (P=0.006). There was no significant statistical association between type of feeding and number of parity (P=0.167).

The percentage of mother who fed their baby EBF and their delivery attended by physician was 43%(105) and there were a significant statistical association between type of feeding and whom attended delivery (P=0.018). About (133) 61.3%of mothers who fed their previous baby EBF and now also fed their baby EBF and there were a significant statistical association between type of feeding and Previous way of feeding (P=0.001), table 2.

**Table 2: Relation of some obstetrical variables to type of feeding.**

Variable	Type of feeding		Total (%)	P value	
	EBF	Non EBF			
Place of delivery	BFH	69(43.4%)	90(56.6%)	159(30.6%)	0.06
	Non BFH	189(52.4%)	172(47.6%)		
Type of delivery	C/S	86(42.2%)	118(57.8%)	204(39.2%)	0.006*
	NVD	172(54.4%)	144(45.6%)	316(60.8%)	
No. of parity	Primiparous	79(54.4%)	66(45.5%)	145(27.9%)	0.167
	Multiparous	179(47.7%)	196(52.3%)	375(72.1%)	
Delivery attended by	Physician	105(43%)	139(57%)	244(46.9%)	0.018*
	Nurse	129(55.8%)	102(44.2%)	231(44.4%)	
	TBA and others	24(53.3%)	21(46.7%)	45(8.7%)	
Previous way of feeding	EBF	133(61.3%)	84 (38.7%)	217(41.7%)	0.001*
	Non- EBF	46(29.1%)	112(70.9%)	158(30.3%)	

\* Significant relation.

### DISCUSSION:

Based on the study, the percentage of exclusive breastfeeding practiced in Hilla city was 49.6% and this percentage was approximate to annual statistical report by ministry of health 2017 where the percentage of EBF for 6 months was 43% <sup>(8)</sup>. This finding is comparable also to studies conducted in Bahir Dar City Administration (49.1%) <sup>(9)</sup>and in Iran (44%) <sup>(10)</sup>, while it was lower than studies conducted in Ghana (79%) <sup>(11)</sup>, and in Egypt (65%) <sup>(12)</sup>. Nevertheless, it was higher than studies conducted in UK (34%) <sup>(13)</sup>and in Saudi Arabia 14% <sup>(12)</sup>. The variations persisting in EBF rate in different regions worldwide might be due to cultural, economic and socio-demographic differences across areas and in the difference in health information and awareness.

Besides, all the countries probably are not focusing on enhancing the EBF rate with the same intensity which may also contribute to the discrepancy. The other possible reasons for the variation in EBF practice found in different studies may be due to the difference in methods used for measuring EBF. The percentage of women that delivered in BFH were only 30.6% in spite of high number of gynecological and obstetrical beds in this hospital, the cause behind this may be the presence of other two major hospital in Hilla city and many private hospitals beside that BFH and this hospital located in loaded traffic area in compare to other two hospitals.

While another study in Shaqlawa district in Iraq showed the percentage of women who delivered in BFH was 68.5%<sup>(14)</sup>. The percentage of exclusive breast feeding in women delivered in BFH was approximately the same as in non BFH with no statistical association between place of delivery and EBF practices, This result is similar to an Iraqi study in Shaqlawa district that found no significant association between place of delivery and exclusive breast feeding<sup>(14)</sup>. These results are in contrast to most other studies that assessed the impact of BFH accreditation hospitals. In Turkey, breastfeeding rates and prolonged breastfeeding lasting more than 12 months increased after BFH accreditation of a university hospital<sup>(15)</sup>. The BFHI accreditation hospitals was also associated with an increase in exclusive breastfeeding up to 6 months<sup>(16,17)</sup>. Several factors have been found to be associated with EBF, in developing countries, socio demographic factors like maternal age, education, employment, residence, cultural and religious practices, living standards, antenatal care practices, home delivery and professional assistance at birth were associated with suboptimal breastfeeding practices<sup>(18-20)</sup>. But the ways the factors influence EBF practice differ in direction from one setting to the other. In this study the EBF practices associated with type of delivery, by whom delivery was attended and age of mother and previous way of feeding. While in Other study done in Misan province, Iraq at 2017 showed residence, previous breastfeeding, maternal health status, educational level, employment, and birth order were associated with the EBF practices<sup>(21)</sup>.

#### CONCLUSIONS:

The prevalence of EBF in Hilla city center is 49.6 and only 30.6% delivered in Babil BFH. The age of mothers, type of delivery, by whom delivery was attended, and previous way of feeding were associated with exclusive breastfeeding. Place of delivery has no association with exclusive breastfeeding.

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