
| RESEARCH ARTICLE

Descriptive study and Knowledge association between women and the importance of exclusive breast-feeding in Babylon governorate

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| ABSTRACT

Exclusive breastfeeding (EBF) is the practice of solely providing breast milk to the infant during the first six months of life, without introducing any other food, drink, or even water, except for essential mineral supplements, vitamins, or medicines. EBF additionally functions as a child's initial immunization, safeguarding them against diseases such as diarrhea, respiratory infections, and potentially life-threatening illnesses. This is a cross-sectional study that is to be conducted at Babylon Maternity and Pediatric Hospital, Al Sadiq Hospital and primary care units. In cross-sectional study of 343 women, the mean age of mothers was 27.97 ± 6.2 years old. We found there are about 60.64% of mothers have good knowledge while 39.07% of them have average knowledge. In this study was found that the highest proportion of mothers have good knowledge about exclusive breast-feeding. There is a significant association between knowledge and socio demographic characteristics in our study (age group, education, occupation, baby weight, parity, and antenatal care visit).

| KEYWORDS

Exclusive breast-feeding, EBF, up to six month age child, knowledge, Babylon governorate, neonate

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1. Introduction

Exclusive breastfeeding (EBF) refers to the practice of providing an infant with only breast milk, without introducing any other form of food or beverage, including water, for the first six months of life. This excludes the use of additional substances, except for specific cases such as supplements of minerals, vitamins, or necessary medications. [1]. The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) strongly advocate for specific breastfeeding practices. According to their recommendations, Initiating breastfeeding within the first hour after birth and exclusively breastfeeding infants for the first six months of life are both crucial practices, and continuing breastfeeding along with the introduction of appropriate complementary foods for up to two years or beyond[2] . Early initiation of breastfeeding (EIBF) refers to the vital practice of providing mothers' breast milk to infants within the first hour of birth, ensuring they receive colostrum. Colostrum, a yellow liquid rich in essential nutrients and antibodies, acts as the baby's first feed and initial immunization, making EIBF a crucial step in newborn care. [3] . EBF plays a vital role in improving the health outcomes of both children and mothers, making it an important public health strategy. By exclusively breastfeeding infants, we can reduce the risk of child morbidity and mortality, safeguarding their well-being. Additionally, EBF helps to control healthcare costs within society[5] . This research aims to assess the knowledge of women in Babylon province about exclusive breastfeeding.

Materials and Methods

2. Methodology

2.1 Study Design, Setting, and Time

This cross-sectional study that conducted at Babylon Maternity and Pediatric Hospital, Al Sadiq Hospital and primary care units. Time about one month for collection the sample ,from first of february to first of march,2023.

2.2 Inclusion Criteria

All mothers attending the following departments, neonatology, maternity Ward, immunization, and antenatal visit for collection of data after being given the consent of the study women had at least one child aged 6 months or younger at the time of study

2.3 Exclusion Criteria

All women who refused to participate in the study

2.4 Pilot Study

A pilot study has to be planned before two weeks of data the collection in order. To test the questionnaire for any modification-required, any other difficulties, the time needed for data collection and to assess whether the research protocol is realistic and workable. The pilot study included 37 samples which would be excluded from the study results.

2.5 Sample Size Determination

The total sample required is (372) for women postnatal to 6 months according to the equation:

$$n = (z^2 pq(1-p))/d^2$$

z: 1.96 .

p: prevalence which is equal to 0.41 .

d: 0.05 .

2.6 Data collection tools

A structured questionnaire was taken from a previous study[4]

- The first part of the questionnaire is about sociodemographic information which includes: Age, Residency, Occupation, education, Number of births, Gender of baby, Mode of delivery, Duration of the pregnancy, Weight of baby and Number of antenatal care visits .

-The second part of the questionnaire is about knowledge of exclusive breast-feeding which include Twenty questions .

2.7 Ethical Approval

This Study protocol will be approved by the committee in Babylon University College of Medicine. Patients verbal consents shall be obtained before interviewing after explaining the study to them. Official agreement from the Babylon Health directorate has been obtained.

2.8 Limitation of the study

1.limited time and duration of study.

2.Convenient sampling doesn't represent the whole population.

2.9 Statistical analysis

The statistical analysis was conducted using the Statistical Package for the Social Sciences (SPSS) version 23. Categorical data were analyzed using frequency and percentage calculations. The chi-square test was employed to assess the relationship between categorical variables. A significance level of $P \leq 0.05$ was considered statistically significant.

Results and Discussion

3.1.1 Descriptive:

Cross-sectional study of 343 mothers, mean age of mothers 27.97 ± 6.2 years old. 55.7% of mothers in the age group 21-30 years old, 53.9% of mothers live in rural areas, 50.4% of them were un employments, 41.4% have colleges education, 62.4% of mothers have male babies, 85.75 of them pregnant for 37 weeks and more, 55.4% of mothers their babies age 91-180 days, 57.1% of them have C/S delivery, 70% of mothers have 3 babies or less, 42% of them delivered baby with weight 2.5-5 kg, 71.4% of mother's visit doctor for 5 times and below. As shown in Table 1.

Table 1: distribution of mothers according to socio-demographic features.

variables		frequency	percentage
Age groups (years)	≤20	41	12.0
	21-30	191	55.7
	31-40	95	27.7
	41-50	16	4.7
Residency	Rural	185	53.9
	Urban	158	46.1
Occupation	un Employment	173	50.4
	Employment	170	49.6
Education	College	142	41.4
	Illiterate	61	17.8
	Primary	38	11.1
	Secondary	102	29.7
Baby Gender	Female	129	37.6
	Male	214	62.4
Pregnancy duration	<37	49	14.3
	37 and more	294	85.7
Baby age	1-30 days	90	26.2
	31-90 days	63	18.4
	91-180 days	190	55.4
Type of delivery	Vaginal	147	42.9
	C/S	196	57.1
Parity	3 and less	240	70.0
	>3	103	30.0
Baby weight (Kgm)	2.5-5	144	42.0
	5.1-7	121	35.3
	7.1-9	78	22.7
Antenatal visits	5 and less	245	71.4
	> 5	98	28.6

As shown in fig. 1 and 2; 60.64% of mothers have good knowledge while 39.07% of them have average knowledge. 27.99% of mothers have good practice while 45.48% of them have average practice.

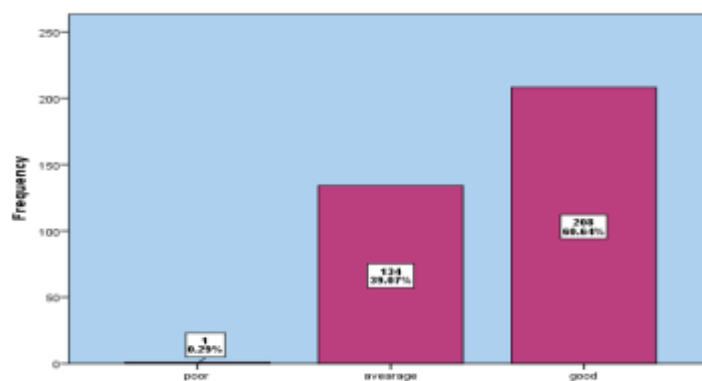


Fig 1: distribution of persons according to knowledge.

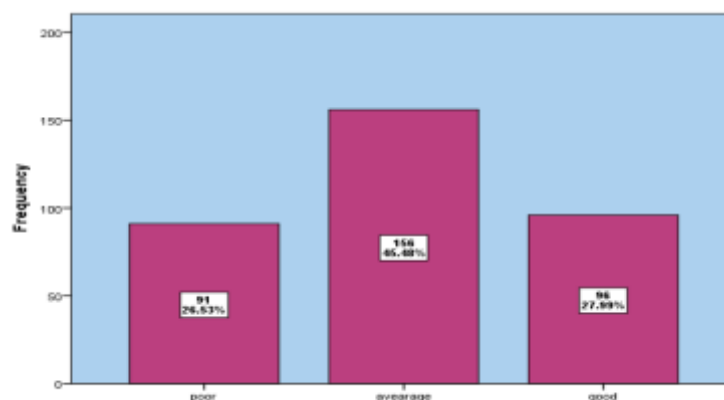


Fig 2: Distribution of persons according to practice.

3.1.1. Knowledge association:

There is a significant association between age group and knowledge, 70.7% of mothers in the age group ≤ 20 years have average knowledge, and 70.2% of mothers at 21-30 years have good knowledge. 92.3% of mothers have a college education with good knowledge and 88.5% of illiterate mothers have average knowledge. 84.7% of employed mothers had good knowledge, 72.7% of mothers with their baby weight 5.1-7 kg have good knowledge while 50.7% of mothers with their baby weight 2.5-5 kg have average knowledge, 78.65% of mothers have > 5 times antenatal visits have good knowledge. 69.6% of mothers ≤ 3 Babies have good knowledge. As shown in table 2.

Table 2: association between variables of current study and knowledge.

Variables		Knowledge			Total	P-value
		Poor	Average	Good		
Age group (years)	≤ 20	0 0.0%	29 70.7%	12 29.3%	41 100.0%	0.0001
	21-30	0 0.0%	57 29.8%	134 70.2%	191 100.0%	
	31-40	1 1.1%	43 45.3%	51 53.7%	95 100.0%	
	41-50	0	5	11	16	

		0.0%	31.3%	68.8%	100.0%	
Residency	Rural	1	82	102	185	0.058
		0.5%	44.3%	55.1%	100.0%	
	Urban	0	52	106	158	
		0.0%	32.9%	67.1%	100.0%	
Education	illiterate	1	54	6	61	0.0001
		1.6%	88.5%	9.8%	100.0%	
	primary	0	28	10	38	
		0.0%	73.7%	26.3%	100.0%	
	secondary	0	41	61	102	
		0.0%	40.2%	59.8%	100.0%	
	College	0	11	131	142	
		0.0%	7.7%	92.3%	100.0%	
Occupation	un Employment	1	108	64	173	0.0001
		0.6%	62.4%	37.0%	100.0%	
	Employment	0	26	144	170	
		0.0%	15.3%	84.7%	100.0%	
Baby gender	Female	1	50	78	129	0.44
		0.8%	38.8%	60.5%	100.0%	
	Male	0	84	130	214	
		0.0%	39.3%	60.7%	100.0%	
Pregnancy Duration	<37	0	13	36	49	0.13
		0.0%	26.5%	73.5%	100.0%	
	37 and more	1	121	172	294	
		0.3%	41.2%	58.5%	100.0%	
Baby age	1-30 days	0	26	64	90	0.1
		0.0%	28.9%	71.1%	100.0%	
	31-90 days	0	23	40	63	
		0.0%	36.5%	63.5%	100.0%	
	91-180 days	1	85	104	190	
		0.5%	44.7%	54.7%	100.0%	
Type of	Vaginal	1	64	82	147	

Delivery	C/S	0.7%	43.5%	55.8%	100.0%	0.16
		0	70	126	196	
		0.0%	35.7%	64.3%	100.0%	
Baby weight (Kgm)	2.5-5	0	73	71	144	0.001
		0.0%	50.7%	49.3%	100.0%	
	5.1-7	0	33	88	121	
		0.0%	27.3%	72.7%	100.0%	
	7.1-9	1	28	49	78	
		1.3%	35.9%	62.8%	100.0%	
Antenatal Visit	5 and less	0	114	131	245	0.0001
		0.0%	46.5%	53.5%	100.0%	
	> 5	1	20	77	98	
		1.0%	20.4%	78.6%	100.0%	
Parity	3 and less	0	73	167	240	0.0001
		0.0%	30.4%	69.6%	100.0%	
	>3	1	61	41	103	
		1.0%	59.2%	39.8%	100.0%	

P-value ≤ 0.05 (significant).

4.1 Discussion

This cross-sectional study which was done on 343 mothers who had children 6 months and less in Babylon governorate about awareness of exclusive breast feeding, Exclusive breastfeeding (EBF) is the practice of providing an infant with only breast milk, without introducing any other food or liquids, including water, for the first six months of life. This means that the baby relies solely on breast milk as their source of nutrition during this period, except for specific mineral supplements, vitamins, or medications as prescribed by healthcare professionals. EBF is recognized as an important feeding practice to ensure optimal growth and development of the infant during the early months of life.

In this study we found 55.7% of mothers in the age group 21-30, the same result seen in the study of Somaliland[4] (59.5%) of the study participants were in the age range of 25-34 years. And another study in Juba, South Sudan[5] (77.3%) of study participants were in the age range of 20-29 years. In our study, we found 53.9% of mothers live in rural areas while in the study in Southern India[6] (55.9%) live in urban areas. In our study, 50.4% of them are un-employed, and in Juba, South Sudan[5] (84.4%) is house wife. In this study 41.4% have colleges education, in a study in Duhok [8] (33.5%) Primary School was more, A study in central Ethiopia 28.4% of mothers read and write[9]. In this study, 62.4% of mothers have males babies, a similar study in Brazilian shows there is about 53.3% of mothers have male babies[10] while study in Somaliland. 51.7% of mothers have female baby gender. In this study, 85.75% of them pregnant for 37 weeks and more, in study in Duhok[8] (92.5%) Gestational age at delivery was 37 weeks and more. In this study 57.1% of them have C/S delivery, in Duhok more common was c/s delivery about 49.8%, In Tabuk, Saudi Arabia[11] (68.8%) was a normal vaginal delivery. In this study, 70% of mothers have 3 babies or less, a study in South Sudan[5] 55.5% have 2-4 children. In our study 71.4% of mother's ANC visits for 5 times and below, apposite to[14]. was 80.7% of mother's ANC visits is 4 and above, In a study done in Northwest Ethiopia 69.1% of mothers had ANC more than 4 visits[12].

5.1 Conclusions

In this study was found that the highest proportion of mothers has good knowledge about exclusive breast feeding, highest proportion of average practice. The mean age of participant mothers was 27.97 ±6.2 years old. There is a significant association between knowledge and sociodemographic characteristics in our study (age group, education, occupation, baby weight, parity, and antenatal care visit). The recommended practice is to exclusively breastfeed infants for the first six months of life. After this

period, complementary foods should be introduced while continuing to breastfeed for at least two years or longer. Moreover, Mothers should be encouraged to initiate breastfeeding within one hour after birth, as this has been shown to improve breastfeeding outcomes.

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