

## **Knowledge and Practices of Exclusive Breastfeeding among** Mothers in Al-Mukalla, Yemen, 2021

#### Maysa S. Al Noban<sup>1</sup>, Mustafa K. Elnimeiri<sup>2</sup> DOI: https://doi.org/10.47372/yjmhr.2023(12).2.3

#### Abstract

**Introduction:** The process of giving breast milk for infant during the first six months without adding other fluids or solid food with the exception of medicines; called Exclusive Breastfeeding (EBF). It is an important strategy for maintaining and improving child health. The overall aim of the study was to investigate the level of knowledge and practices regrading EBF and the factors associated with them among mothers in Al Mukalla, Yemen.

Methods: A community-based cross- sectional study was conducted in the urban and rural area localities in Al-Mukalla. Five hundred eighty-one mothers were selected randomly for those having a child aged <5 years. Data were collected using a pre-tested interviewer-administered questionnaire. Bivariate and multivariate logistic regressions were used to analyze the association between the variables.

**Results:** Urban mothers had good knowledge about EBF, while it was widely practiced among rural mothers. Eighty-two percent of urban mothers knew about EBF, and the main source for them was visits to Maternal and Child Health centers. Certain factors like age among rural mothers, education and work of mothers in both areas were significantly associated with EBF knowledge and practice of mothers.

Conclusion: Fair knowledge was common among urban mothers while their EBF practice was comparatively lower than mothers living in rural area. There is a need for efforts and adequate support at all levels to increase the knowledge and translates it into practice.

Keywords: Exclusive breastfeeding, Urban, Rural, Knowledge, Practice.

<sup>1</sup> Community Medicine and Public Health Department, Faculty of Medicine and Health Sciences, University of Aden, Republic of Yemen.

<sup>2</sup> Community Medicine Department, Al Neelain University, Khartoum/ Sudan. Corresponding Author: Maysa S. Al Noban

Email: mayalnoban@gmail.com

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معارف وممارسات الرضاعة الطبيعية الحصرية بين أمهات الريف والحضر في مدينة المكلا، اليمن 2021

مايسه سعيد نوبان1، مصطفى خضر النميري2

ملخص الدراسة

المقدمة: إعطاء حليب الأم للرضع خلال الأشهر السنة الأولى دون إضافة سوائل أخرى أو طعام صلب باستثناء الأدوية؛ يسمى الرضاعة الطبيعية الحصرية، وهي استراتيجية مهمة للحفاظ على صحة الطفل وتحسينها. كان الهدف العام من الدراسة هو التحقق من مستوى معرفة وممارسات الرضاعة الطبيعية الحصرية والعوامل المرتبطة بها بين الأمهات في المكلا، اليمن. **المنهجية:** دراسة مقطعية مجتمعية أجريت في المناطق الحضرية والريفية في المكلا. تم اختيار خمسمائة وواحد وثمانين أمًا بشكل عشوائي ممن لديهن طفل عمره أقل من خمس سنوات. جمعت البيانات باستخدام استبيان تم اختباره مسبقًا بو اسطة المحاور . تم استخدام الانحدار اللوجستي ثنائي المتغير ومتعدد المتغيرات لتحليل الارتباط بين المتغيرات. النتائج: كان لدى الأمهات الحضريات معرفة جيدة حول الرضاعة الطبيعية، بينما تم ممارستها على نطاق واسع بين الأمهات الريفيات. وجد أن 82٪ من الأمهات في المناطق الحضرية كن على علم بأمر الرضاعة الطبيعية، وكان المصدر الرئيسي لهن هو زيارات المراكز الصحة للام والطفل. بعض العوامل مثل العمر للأمهات الريفيات والتعليم والعمل للأمهات في كلا المجالين أثر على المعرفة والممارسة تجاه الرضاعة الطبيعية الحصرية. الاستنتاج: كانت المعرفة المتوسطة شائعة بين الأمهات في المناطق الحضرية، بينما كانت الممارسات أكثر نسبيًا بين الأمهات في المناطق الريفية. هناك حاجة لبذل جهود ودعم كافٍ على جميع المستويات لزيادة المعرفة وترجمتها إلى ممارسة. الكلمات المفتاحية: الرضاعة الطبيعية الحصرية، الحضر، الريف، المعرفة، الممارسة.

> <sup>1</sup>قسم طب المجتمع الصحة العامة ، كلية الطب والعلوم الصحية، جامعة عدن، الجمهورية اليمنية . <sup>2</sup>قسم طب المجتمع، جامعة النيلين، الخرطوم / السودان.

# Introduction

The first years of child's life is verv important to well development, and anv nutritional deficiency in this period leads to high rate of morbidity and mortality. impaired cognitive development that is later reflected on the growth and development of society[1]. Evidently, the exclusive breastfeeding (EBF) is considered the best nutrition practices and strategies for health and growth of children. Breast milk plays an important role in stimulating immune system, reducing incidence of respiratory infection, ear infection. sudden infant death syndrome, obesity, gastrointestinal diseases and improvement dentation, which work in conjunction with the public health strategy on decreasing the infant and child mortality and morbidity rate [2,3]. Besides that, breast milk is considered the ideal feeding practice for infant; hygienic, safe, cheap, readily available and affordable. and has specific characteristics that match by growing infant's nutritional requirements. It saves the lives of nearly 820,000 children under five all over the world [4].

The percentage of infants aged 0 to 5 months who exclusively breastfed has risen around the world as a result of governments implementation of the recommended nutritional strategies. based on data analysis of more than 80 countries (around 74% of the global population). The rate of EBF in 2018 was around 42% compared with 35% in 2005. With all of these efforts, however, the rate of breastfeeding is still low in some countries, which reflects many factors that affect breastfeeding, which include promoting alternatives to breast milk, mother's work and not finding a balance between work and child care, social and cultural ideas and practices about breastfeeding [5]. As a result, mothers in some countries give their children in the first three days of life other fluids besides breast milk such as water, honey, sugar water and sometimes animal milk, which makes the child vulnerable to many diseases that may threaten his life [6].

In many countries, the decision to exclusively breastfeed or complementary feed is not in the mother's hand, but the mother-in-law or grandmother make the decision about how to feed infants and children. In many cases, the advice of grandmothers may be inappropriate and based on their cultural beliefs. backgrounds and For example, some grandmothers consider colostrum as "dirty" and should not be given to the child and impose the introduction of foods for infants during the first six months and this negatively affects their health [7].

The objective of this study was to investigate the extent and associated factors of exclusive breastfeeding knowledge and practices amongst mothers having a child 0-5 years' months of age in Al-Mukalla, which is obligatory for interventions to accelerate public efforts and to reduce the rate and burden of infant morbidity.

## Methods

### Study design and setting

A community-based cross- sectional study was conducted in urban and rural area localities in Al-Mukalla, Hadhramout Governorate, Yemen from August - November 2021. According to the administrative division of AL- Mukalla; there was 12 urban areas most of its population work in government jobs, and there were six rural areas considered as tribe society; and majority of their population work in agriculture and livestock care [8].

### Study population and sampling

Mothers having at least one child aged 0-59 months and live in urban or rural area. Mothers with serious mental problems, having hearing and speaking difficulties or children under the care of anyone other than their mothers (baby sitters, friends, etc.) were excluded. The sample size was using the Fisher's calculated statistical formula (N= $K^2$  (pq)/ $d^2$ ), where the proportion of women was 13.2% in fertile age according to health office in Al- Muklaa. [8] After calculating the sample size, five hundred eighty-one mothers were selected randomly using Random Walk Method where the approximate center of the community determined and streets leading out from that point were numbered. The order in which the streets were sampled is determined by randomly drawing numbers from an envelope. All houses on each street were approached to inquire as to whether mothers within inclusion criteria [9].

### Data collection

Structured questionnaire was used after being modified from Multiple

Indicator Cluster Survey [10] for children under 5 years to collect data on the knowledges and practice of mothers about EBF. Pretest was done on 5% of sample out of non-sampling areas, and necessary correction was made on the clarity of language, the sequence and work ability of questionnaire. Orientation was given for supervisors and data collectors.

### Statistical analysis

Statistical package for social sciences (SPSS) software version 20 was used for data entry and analysis after check for its completeness. Data were cleaned by running simple frequency to check for its consistency and the of outliers. Univariate presence analysis was summarized as frequencies and percentages. Logistic regression was used to estimate determinants of the EBF knowledge and practice expressed as adjusted odds ratio (AOR). Level of practice knowledge and was classified as good, fair, and Poor based on the score get by the responses to the questions (those who answer correctly for all knowledge and practice question considered as having good level, those who answered correctly on two thirds of questions considered as fair level, while those answered correctly on one third of questions considers as having poor level).

### Ethical consideration

This study was conducted out after obtaining the ethical clearance from the institutional review board at Al-Neelan University (IRB Serial No. NU- IRB-17-3-3-18), a permission from health authorities in Al- Mukalla city, and verbal informed consent from each participant prior to interview.

## Results

In Table No. 1, 46% of mothers knew about EBF (majority of them from urban area 82%). However, 35.9% answered correctly about the nature of EBF. The main source of information in urban area was visit to maternal and child health (MCH) centers (90.6%), while in rural area the community volunteers (61.5%). Around one third (32.6%) of mothers indicated that more >6 months is the ideal duration for EBF (high among urban mothers at 95.4%). Thirty-six percent knew that EBF is important to protect child; majority of them were from urban areas (87.5%), while only 29.2% of mothers in rural area knew that EBF is important because it is the ideal food. Good and fair knowledge scores were found more among urban mothers (89.2%) and 74.2% whereas respectively) poor knowledge was higher among the rural mothers (77.4%).

Knowledge	Т	otal	Ur	ban	Rural	
	No.	%	No.	%	No.	%
*Ever heard about EBF						
Yes	267	46	219	82	48	18
No	314	54	71	22.6	243	77.4
One of the following considering EBF (n=267)						
Giving only breast milk without added any other fluids	96	35.9	86	89.6	10	10.4
Giving breast milk with added other fluids (water, juice)	101	37.8	78	77.2	23	22.8
Giving child breast milk with added other types of milks	37	13.9	30	81.1	7	18.9
Giving child breast milk with other kinds of food	33	12.4	25	75.8	8	24.2
Source of knowledge about EBF (n=267)						
Media	101	37.8	90	89.1	11	10.9
Family/ friends	52	19.5	42	80.8	10	19.2
Community volunteers	26	9.7	10	38.5	16	61.5
Visits to MCH	32	12.1	29	90.6	3	9.4
Lectures	34	12.7	30	88.2	4	11.8
More than one source	22	8.2	18	81.8	4	18.2
The ideal duration for EBF $(n=267)$						
Up to 6 months	71	26.6	65	91.5	6	8.5
>6 months	87	32.6	83	95.4	4	4.6
≤1 year	24	9	20	83.3	4	16.7
>1 year	38	14.2	20	52.6	18	47.4
Up to 2 years	29	10.9	17	58.6	12	41.4
>2 years	18	6.7	14	77.8	4	22.2
The importance of EBF (n=267)	10	017		1110	·	
Protection of child	96	36	84	87.5	12	12.5
Ideal food for children	72	26.9	51	70.8	21	29.2
Strong relation between child and mother	36	13.5	28	77.8	8	22.2
Help mother to lose weight gained during pregnancy	27	10.1	24	88.9	3	11.1
Protect mother form breast cancer	17	6.4	17	100	0	0.0
More than one	19	7.1	15	79	4	21
*Knowledge Score	-		-			
Good	139	24	124	89.2	15	10.8
Fair	128	22	95	74.2	33	25.8
Poor	314	54	71	22.6	243	77.4

Note: \* percentage was taken from total number of mothers (581)

Mothers at age 20-29 (AOR 2.566; 95%CI 1.043- 6.309), being age 30-39 years (AOR 2.240; 95% CI 0.842-5.955), had primary education (AOR 1.815; 95% CI 0.701- 4.699) had secondary education (AOR 1.979; 95% CI 0.712- 5.502), and being working mothers (ARO 1.219; 95% CI 0.612-2.394) were more likely to know about EBF as shown in Table 2.

			ŀ	Knowledge	of EBF	
Predictors	Y	es	Ν	No	Total	AOD (050/ CI)
	No.	%	No.	%	Total	AOR (95% CI)
Mother's age (years)						
<20	1	100	0	100	1	0.048 (0.028- 3.311)
20-29	96	78.7	26	21.3	122	2.566 (1.043- 6.309)
30-39	91	68.9	41	31.1	132	2.240 (0.842- 5.955)
≥40	31	88.6	4	11.4	35	1
Mother's education						
Illiterate	27	61.4	17	38.6	44	0.637 (0.211- 1.928)
Primary	111	79.9	28	20.1	139	1.815 (0.701-4.699)
Secondary	62	79.5	16	20.5	78	1.979 (0.712- 5.502)
University	19	65.5	10	34.5	29	1
Marital status						
Married	208	75.1	69	24.9	277	0.765 (0.077-7.392)
Divorced	5	100	0	0.0	5	0.988 (0.023- 2.983)
Separated but not divorced	3	100	0	0.0	3	0.882 (0.079-9.885)
Widowed	3	60	2	40	5	1
Working status						
Work	43	76.8	13	23.2	56	1.219 (0.612- 2.394)
Not Work	176	75.2	58	24.8	234	1
Note: AOP: Adjusted O	d Datio	CI: Confid	anco intorn	-1		

Note: AOR: Adjusted Odd Ratio, CI: Confidence interval

In Table 3, mothers at age <20 years (AOR 1.933; 95% CI 0.281- 13.295), at age 20-29 years (AOR 1.031; 95% CI 0.256- 4.158) were more likely to know about EBF than mothers at age >40 years. Being divorced mothers (AOR 2.762; 95% CI 0.278- 27.462), and being separated mothers (AOR 2.792; 95% CI 2.605- 2.980) were more likely to be knowledgeable about EBF than widowed mothers.

				Knowled	ge Score of EI	BF
Predictors	Ŋ	es		No Total		AOR (95% CI)
	No. % No. %		Totai	AUK (93 % CI)		
Mother's age (years)						
<20	5	35.7	9	64.3	14	1.933 (0.281-13.295)
20-29	19	20.4	74	79.6	93	1.031(0.256-4.158)
30-39	20	13.2	132	86.8	152	0.690 (0.176- 2.711)
≥40	4	16.5	28	87.5	32	1
Mother's education						
Illiterate	9	15	51	85	60	0.918 (0.168- 5.035)
Primary	18	15.3	100	84.7	118	0.455 (0.084-2.463)
Secondary	19	20.4	74	79.6	93	0.779 (0.150- 4.038)
University	2	10	18	90	20	1
Marital status						
Married	46	16.3	236	83.7	282	0.266 (0.023- 3.012)
Divorced	1	25	3	75	4	2.762 (0.278-27.462)
Separated but not divorced	0	0.0	2	100	2	2.792 (2.605-2.980)
Widowed	1	33.3	2	66.7	3	1
Working status						
Work	8	21.6	29	84.3	37	3.087 (1.110- 8.583)
Not Work	40	15.7	214	84.3	254	1

#### Table 3: Predictors of EBF Knowledge among Rural Mothers, Al-Mukalla, Yemen

Note: AOR: Adjusted Odd Ratio, CI: Confidence interval

Table 4 shows that starting BF after delivery within 8-24 hours, giving colostrum, continuous EBF for <6 months and added complementary food at the age < 6 months were practiced more among urban mothers (75%, 74.1%, 61.9% and 55.4% respectively). Rural mothers more practiced squeezing colostrum (79.2%), continued EBF for  $\geq 6$  months (64.8%) and start adding complementary food at age >6 months (51%). The fair practice score showed more among urban mothers (67.7%), while good practice score showed high among rural mothers (76%).

Practice	Te	otal	Ur	ban	Rı	ıral			
Practice	No.	%	No.	%	No.	%			
*Starting breastfeeding after delivery									
Yes	526	90.5	276	52.5	250	47.5			
No	42	7.2	11	26.2	31	73.8			
Not remember	13	2.3	3	23.1	10	76.9			
Time of starting breastfeeding after delivery (n=526)									
Within 1 <sup>st</sup> hour	143	27.2	81	56.6	62	43.4			
1-8 hours after delivery	322	61.2	144	44.7	178	55.3			
8-24 hours after delivery	12	2.3	9	75	3	25			
>24 hours	23	4.4	13	56.5	10	43.5			
I don't remember	26	4.9	13	50	13	50			
*Time of giving colostrum to		<b>-</b>							
Given child immediately	317	54.6	235	74.1	82	25.9			
Squeezing it	264	45.4	55	20.8	209	79.2			
Reason for squeezing the col			00	22.4	47				
Not clean	71	27	23	32.4	47	67.6			
Making child sick	39	14.8	7	17.9	32	82.1			
To initiate milk production	118	44.6	42	35.6	76	64.4			
Had no benefits to child	36	13.6	15	41.7	19	58.3			
*Duration of EBF									
<6 months	320	55.1	198	61.9	122	38.1			
≥6 months	261	44.9	92	35.2	169	64.8			
*The age that substituted bre		•							
<6 months	210	36.1	188	89.5	22	10.5			
6 months- 1 year	267	46	60	22.5	207	77.5			
$\geq 1$ year	104	17.9	42	40.4	62	59.6			
*The age at which compleme									
<6 months	83	14.3	46	55.4	37	44.5			
$\geq 6$ months	498	85.7	244	49	254	51			
*Practice Score									
Good	171	29.4	41	24	130	76			
Fair	260	44.8	176	67.7	84	32.3			
Poor	150	25.8	73	48.7	77	51.3			

Table 4: EBF Practices of Mothers, Al-Mukalla, Y	'emen
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Note: \*Percentage was taken from total of mothers (581)

In Table 5, being illiterate (AOR 2. 647; 95% CI 0.886- 7.905), having secondary education (AOR 12.134; 95% CI 2.354- 62.649) were more likely to had good EBF practice than mothers with university education.

Likewise, being with good knowledge score (AOR 1.394; 95% CI 0.538-3.615) were more likely to practice EBF than mothers with poor knowledge score.

	EBF Practice							
Factors	G	ood	F	air	P	oor	Total	AOR (95% CI)
	No.	%	No.	%	No.	%		
Mother's age (years)	_	_	-				_	-
<20	0	0.0	1	100	0	0.0	1	0.279 (0.086- 7.905)
20-29	21	17.2	77	63.1	24	19.7	122	0.437 (0.103-3.614)
30-39	12	9.1	75	56.8	45	34.1	132	0.133 (0.034- 0.519)
$\geq 40$	8	22.9	23	65.7	4	11.4	35	1
Mother's education								
Illiterate	0	0.0	36	81.8	8	18.2	44	2. 647 (0.886-7.905)
Primary	5	3.6	93	66.9	41	29.5	139	0.108 (0.038- 0.308)
Secondary	34	43.6	30	38.5	14	17.9	78	12.134 (2.354- 62.649)
University	2	6.9	17	58.6	10	34.5	29	1
Marital status								
Married	40	14.4	171	61.7	66	23.8	277	10.364 (1.173-94.498)
Divorced	1	20	2	40	2	40	5	0.825 (0.072-9.393)
Separated but not divorced	0	0.0	2	66.7	1	33.3	3	0.772 (0.069- 8.657)
Widowed	0	0.0	1	20	4	80	5	1
Working status								
Work	1	1.8	11	19.6	44	78.6	56	0.016 (0.002- 0.127)
Not Work	40	17.1	165	70.5	29	12.4	234	1
EBF Knowledge								
Good	27	15.8	98	57.3	46	26.9	171	1.394 (0.538- 3.615)
Fair	6	13	32	69.6	8	17.4	46	0.880 (0.464-1.668)
Poor	8	11	46	63	19	26	73	1

Note: AOR: Adjusted Odd Ratio, CI: Confidence interval

Rural mothers being at age 30-39 yeas (AOR 1.503; 95% CI 0.527- 4.287) were more likely to practice EBF than mothers at age>40 years. Mothers being primary educated (AOR 7.210; 95% CI3.728- 13.912), being secondary educated (AOR 1.130; 95% CI 0.618- 2.066) were more likely to practice EBF than university education. Married mothers (AOR 2.101; 95% CI 0.358- 18.773), divorced mothers (AOR 2.128; 95% CI 0.339- 17.737), were more likely to practice EBF than widowed as shown in Table 6.

<b>Table 6:</b> Predictors of EBF Practice among Rural Mothers, Al-Mukalla, Yemen									
	Nutritional Practice								
Factors		ood		'air		oor		otal	AOR (95% CI)
	No.	%	No.	%	No.	%	No.	%	
Mother's age (years)									
<20	4	28.6	5	35.7	5	35.7	14	100	0.560 (0.110- 2.862)
20-29	43	46.2	19	20.4	31	33.4	93	100	0.917 (0.333- 2.832)
30-39	73	48	45	29.6	34	22.4	152	100	1.503 (0.527-4.287)
$\geq 40$	10	31.2	15	46.9	7	21.9	32	100	1
Mother's education									
Illiterate	1	1.7	42	70	17	28.3	60	100	0.027 (0.004- 0.210)
Primary	85	72	17	14.4	16	13.6	118	100	7.210 (3.728-13.912)
Secondary	44	47.3	25	26.9	24	25.8	93	100	1.130 (0.618- 2.066)
University	0	0.0	0	0.0	20	100	209	100	1
Marital status									
Married	130	46.1	84	29.8	68	24.1	282	100	2.101 (0.358-18.773)
Divorced	0	0.0	0	0.0	4	100	4	100	2.128 (0.339- 17.737)
Separated but not divorced	0	0.0	0	0.0	2	100	2	100	0.210 (0.951-2.766)
Widowed	0	0.0	0	0.0	3	100	3	100	1
Working status									
Work	0	0.0	0	0.0	37	100	37	100	0.0 04(0.020- 0.095)
Not Work	130	51.2	84	33.1	40	15.7	254	100	1
EBF Knowledge									
Good	8	36.4	6	27.2	8	36.4	22	100	0.518 (0.158- 1.451)
Fair	10	34.5	8	27.6	11	37.9	29	100	0.471 (0.189- 1.173)
Poor	112	46.7	70	29.2	58	24.1	240	100	1

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**Table 6:** Predictors of EBF Practice among Rural Mothers, Al-Mukalla, Yemen

Note: AOR: Adjusted Odd Ratio, CI: Confidence interval

## Discussion

This study aimed to determine EBF knowledge and practice of urban and rural mother in AL-Mukalla. EBF knowledge was relatively higher among urban mothers than rural mothers. Their available knowledge was built on their visits to the MCH centers which were the main source of urban mother's information about EBF (90.6%), its duration, and other related information. In contrast; community volunteers were the main source of information for rural mothers (61.5%). This might be explained by the fact that the volunteers might be not well-trained in dealing and communicating with mothers, and not giving adequate information, or their working hours are restricted to certain days per week (two to three days' week).

Our finding is in agreement with that detected in urban area of Egypt which reported suboptimal level of knowledge about EBF [11]. Similar to our finding, the study done in Ethiopia, [12] and Ghana [13] revealed health facilities as the major source of information.

showed This study significance association between mother's age and EBF knowledge (urban p=0.045 and rural p=0.027). Mothers in their twenties or thirties were more likely to know about EBF than those at >40years. of age. This may be explained by the fact that younger mothers prefer to give birth in hospitals, where they might have received valuable information on EBF from health workers and doctors unlike older mothers who prefer to give birth at home. This finding is consistent with that reported in rural Rajshahi district in Bangladesh, where rural mothers in their twenties were more likely to а good EBF knowledge have compared to their counterparts [14].

The education level had significant effect on knowledge about EBF among both urban and rural mothers, which was similarly observed by studies of Spronket *et al*, [15] and Ishola and Oyeleke [16].

In relation to the duration of EBF and adding complementary food in this study, 44.9% of mothers had been exclusively breastfed their infants for  $\geq 6$  months. This is lower than that recommended by WHO to increase the rate of EBF up to at least 50% in 2012–2025 [17]. EBF for >6 month was more common among rural mothers (64.8%) than urban mothers (35.2%). This percentage was higher than that reported form Ethiopia [18] and Brazil [19] with 26.4% and 15.2% respectively. In a related context, urban mothers added complementary food at age < 6months, while rural mothers added it after  $\geq 6$  months of child age. The most common reason for urban mothers to start complementary feeding <6 months of child's age might be early return to work, lack of nursing breaks, and lactation places. This finding is not in agreement with the findings from Pakistan [20], Bangladesh [21], and India [22] which reported introducing complementary food at six or nine months, but in agreement with a study conducted in AL- Ahsa in Saudi Arabia [23].

The current study showed good EBF practice among rural mothers aged 30-39 years. The possible explanation might be that majority of studied mothers were at age 30-39 years especially in rural area. This finding is not consistent with Bangladesh findings where younger mothers (<20) years had practices as likened to the older respondents ( $\geq 21$  years) [14].

On the other hand, work of mothers negatively influencing EBF among mothers in both areas. This might probably be due to the fact that mothers require to start early complementary feeding since they need to resume their work as early as possible, and also due to the lack of nursing breaks or lactation places in their place of work.

# Conclusion

The prevalence of EBF in this study was 44.9% which is lower than that recommended by WHO. [17] The knowledge of urban mothers about EBF were fair, while the practice of EBF among rural mothers was good. There is a need to adequate support at all levels to increase the knowledge and translates it into practice, and focusing on WHO/ UNICEF Global Strategy for Infants and Young Child Feeding (IYCF) [24] through training of health workers and volunteers about counseling mothers.

## References

- Victora CG, Adair L, Fall C, Hallal PC, Martorell R, Richter L, *et al.* Maternal and child undernutrition: consequences for adult health and human capital. Lancet 2008 26;371(9609):340-57.
- Kumar D, Goel NK, Kalia M, Swami HM, Singh R. Gap between awareness and practices regarding maternal and child health among women in an urban slum community. Indian J Pediatr 2008; 75(5): 455-8.
- Bham SQ, Saeed F, Shah MA. Knowledge, attitude and practice of mothers on acute respiratory infection in children under five years. Pak J Med Sci 2016; 32 (6): 1557-61.
- 4. Victora CG, Bahl R, Barros AJD, França VA, Horton, Krasevec SJ, *et al.* Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. Lancet 2016; 387: 475–90.
- UNICEF. The State of the World's Children 2019. Children, Food and Nutrition. Growing well in a changing world Children. UNICEF, New York. 2019 October. ISBN: 978-92-806-5003. [Cited 2020 Fab]. Available from: https://www.unicef.org/media/630 16/file/SOWC-2019.pdf
- UNICEF. From the First Hour of Life, Making the case for improved infant and young child feeding everywhere. UNICEF. 2018. ISBN: 978-92-806-4852-2. [Cited 2019 May]. Available from: https://www.unicef.org/media/498 01/file/From-the-first-hour-oflife-ENG.pdf
- 7. Kavle JA, Lacroix E, Dau H, Engmann C. Addressing barriers to exclusive breastfeeding in low-

and middle-income countries: A systematic review and programmatic implications. Public Health Nutrition 2017; 20 (17): 3120–34.

- Republic of Yemen, Health office of Hadhramout/ statistical department. 2017
- 9. World Health Organization. Training for Mid-Level Managers (MLM). Module 7: the EPI coverage WHO survey. 2008. [cited 2019 /IVB/08.07. Available May]. from: https://www.who.int/immunizatio n/documents/MLM\_module7.pdf? ua=1
- 10. UNICEF. Multiple Indicator Cluster Survey. MICS6 Questionnaires. Questionnaire for Children Under Five. 2019 June. [cited 2020 Jan]. Available from: http://mics.unicef.org/tools#surve y-design
- 11. Senosy SA, Saleh LH, Alareed HR. Exclusive breastfeeding knowledge, practices and determinants among mothers in rural areas, Egypt. Int J Community Med Public Health 2020;7(7): 1-7.
- 12. Alamirew MW, Bayu NH, Tebeje NB, Kassa SF. Knowledge and attitude towards exclusive breast feeding among mothers attending antenatal and immunization clinic at Dabat health center, northwest Ethiopia: a cross-sectional institution-based study. Nurs Research Practice 2017; 3:1-9.
- 13. Danso J. Examining the practice of exclusive breastfeeding among professional working mothers in Kumasi metropolis of Ghana. Int J Nurs. 2014;1(1): 11-24.
- 14. Rana MM, Islam MR, Karim MR, Islam AZ, Haque MA, Shahiduzzaman M, *et al.* Knowledge and practices of

exclusive breastfeeding among mothers in rural areas of Rajshahi district in Bangladesh: A community clinic-based study. PLoS ONE 2020; 15, e0232027.

- Spronk I, Kullen C, Burdon C, O'Connor H. Relationship between nutrition knowledge and dietary intake. Britain J Nutrition. 2014; 111:1713–26.
- 16. Ishola1 AA, Oyeleke AI. Maternal education and nutritional compliance among mothers of under-five in Abeokuta, Ogun State: Implications for social work practice. J Social Work Education and Practice. 2019; 4 (4): 25-33
- 17. WHO.WHA Global Nutrition Targets 2025: Breastfeeding Policy Brief 2014. <u>http://www.who.int/nutrition/topic</u> <u>s/globaltargets breastfeeding poli</u> <u>cybrief.pdf</u>.
- Taddelle M, Abebe L, Fentahun N. Exclusive breastfeeding and maternal employment in Ethiopia: a comparative cross-sectional study. Int J Nutr Food Sci 2014; 3 (6): 497–503.
- 19. De Olivera MM, Camelo SJ. Gestational, perinatal and postnatal factors that interfere with practice of exclusive breastfeeding by 6 months after birth. Int Breastfeed J 2017; 12 (1): 42.
- 20. Manikam L, Sharmila A, Dharmaratnam A, Alexander E, Kuah J, Prasad A, et al. Systematic review of infant and young child complementary feeding practices in South Asian families: The Pakistan perspective. Public Health Nutr. 2018; 21(4): 655–68.
- 21. Manikam L, Robinson A, Kuah JY, Vaidya HJ, Alexander EC, Miller GW, et al. A systematic review of complementary feeding practices in South Asian infants and young children: The

Bangladesh perspective. BMC Nutr 2017; 21 (4): 655-668.

- 22. Manikam L. Prasad A. Dharmaratnam A. Moen C. Robinson A, Light A, et al. Systematic review of infant and young child complementary feeding practices in South Asian families: The India perspective. Public Health Nutr 2018: 21(4):637-54.
- 23. Batool A. Al-Katufi, Maymoona H. Al-Shikh, Rawan F. Al-Hamad, Abdulmohsin Al-Hajri, Abdullah Al-Hejji. Barriers in continuing exclusive breastfeeding among working mothers in primary health care in the ministry of health in Al-Ahsa region, Saudi Arabia. J Family Med Prim Care 2020; 9(2): 957–72.
- 24. World Health Organization. Global strategy for infant and young child feeding. Geneva: WHO; 2003. [Cited 2020 June]. Available at: <u>http://www.paho.org/english/ad/fc</u> <u>h/ca/GSIYCF\_infantfeeding\_eng.</u> pdf. (Accessed December 2019)