Exclusive breastfeeding practice and associated factors among first time mothers in Bahir Dar city, North West Ethiopia, 2016: A cross sectional study.

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Research

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Abstract

Background: Exclusive breastfeeding means infants were fed only breast milk, not even water, one day (24 hrs.) before the survey was conducted. It is considered as core practice to achieve almost all 2030 Sustainable Development Goals, specifically sustainable development goal 2 which focuses in ending hunger and improving nutrition and goal 3 which focuses in reducing child and maternal mortality. The objective of this study was to assess the prevalence of exclusive breastfeeding practice and its associated factor among first time mothers in Bahir Dar city, North West Ethiopia.

Method: A community based quantitative cross sectional study was carried out from March to April, 2016 among 423 first time mothers in Bahir Dar city. Study participants were selected by using simple random sampling method i.e., lottery method. Data on infant feeding practice were collected by trained interviewers who used a structured questionnaire. Both binary and multivariable logistic regression were used to determine factors associated with exclusive breastfeeding. Statistical significance was declared at P -value <0.05.

Results: Prevalence of exclusive breastfeeding practice 24 hours before the survey was 57.3 % (95%CI: 52.3%, 62%). Mothers not being married (AOR 2.787, 95% CI: 1.083, 7.171), were supported by their husband (AOR 3.658, 95%CI: 2.132, 6.278), with no breast complication (AOR 3.658, 95% CI: 2.132, 6.278), who had four or more antenatal care follow up (AOR 2.512, 95%CI: 1.494, 4.233) were more likely to practice exclusive breastfeeding. On the other hand, mothers who were living in nuclear family (AOR 0.48, 95%CI: 0.231, 1.001) were less likely to practice exclusive breastfeeding.

Conclusion: The prevalence of exclusive breastfeeding practice in the study area was lower than the national recommended level. In this study maternal age, number of antenatal care visits, husband support, breast complication and type of family were predictors of exclusive breastfeeding. Involving partners during infant feeding counseling and education, creating awareness about breastfeeding, special attention for the first time mothers, and prenatal education for expectant parents were recommended to improve exclusive breastfeeding among first time mothers.

Background

Breastfeeding is unparalleled in providing the ideal food for infants. It contains all necessary nutrients for growth and development of infants and antibodies that can protect infants from many childhood illnesses [1]. WHO and UNICEF jointly recommended that breastfeeding should be initiated within one hour of delivery, exclusive breastfeeding for six months and continued breastfeeding with adequate and safe complementary feeding up to two years and beyond [2-4]. According to the 2016 Lancet Series on breastfeeding [5] 823,000 child deaths and 20,000 maternal deaths could be averted through universal breastfeeding each year. A meta-analysis by Sankar et al. showed the risk of all-cause mortality for not breastfed infants was 14.4 times higher compared to exclusive breastfed infants 0-5 months of age [6].

Exclusive breastfeeding is known to be the single most important preventive intervention for reducing early childhood mortality. It has the potential to reduce mortality among under-5 children by 19% together with appropriate complementary feeding [7]. Breastfeeding is a critical intervention to reduce under five child mortality. Death of more than 820,000 under five children in which 87% of them are infants less than 6 months of age could be averted annually in 75 LMICs by increasing breastfeeding every year. In children aged 6-23 months, any breastfeeding was associated with a 50% reduction in deaths [2].

Breastfeeding has numerous benefits for infants, mothers and the world community at large. Reducing overall infant mortality, preventing malnutrition, decreasing chronic conditions such as asthma, over weight and obesity, cardiovascular diseases, childhood cancers and breast cancer in later life are among infants' benefits of breastfeeding. It has also benefits for nursing mothers in reducing bleeding, breast cancer and ovarian cancer [8, 9].

Breastfeeding also is a vital element of global socioeconomic development efforts to create healthiest, prosperous and sustainable globe. It adds around \$US 300 billion to the world economy [10]. It has also a great contribution to keep environmental sustainability. Breast milk is a “natural, renewable food” that is environmentally sound and produced and delivered to the consumer without pollution, unnecessary packaging or waste. Breast milk’s contribution to more environmentally-responsible production and consumption patterns makes it an invaluable resource in reaching global sustainability and climate change goals[2]. Although these multitude benefits of breastfeeding, analysis of data from 123 countries shows that around the world, 4% of babies in low- and middle-income countries and 21 % of babies in high-income countries are never breastfed respectively[4].

Many factors were found to affect exclusive breastfeeding such as; age of mothers, household income, marital status, sex and age of infant, cultural practices, lack of adequate support in health facilities, aggressive promotion of infant formula through media, lack of knowledge on dangers of artificial feeding among mothers, their partners and community[1, 8, 11, 12].

Ethiopian HSDP IV had planned to increase the proportion of exclusive breastfeeding to 70% by the end of 2015 [13]. But the current Ethiopian Health and Demographic Health Survey (EDHS 2016) estimated only 58% of infants were exclusively breastfed [14].

Exclusive breastfeeding is considered as core practice to achieve a 2030 sustainable development agendas, specifically SDG 2-which focuses in ending hunger and improving nutrition worldwide;SDG3-which focuses in reducing child and maternal mortality and improving health for all people globally [10, 15].

Although considerable evidence on the health and economy benefits of breastfeeding, the vast majority of children are not breastfed according to the World Health Organization’s recommendation. In 2018,163 of 194 countries (84%) lag behind to meet the global target, which aims to increase the proportion of exclusively breastfeeding at six months to 50% by 2025. This low prevalence of exclusive breastfeeding has real and lasting consequences in terms of human life, quality of life, and national economic outcomes [16].

Although the several established benefits of breastfeeding, formula feeding has also gained a lot of recognition among first-time mothers. First-time mothers might have several perceptions about breastfeeding based on what they have seen or heard from people about breastfeeding. Most of them might feel unskilled to practice breastfeeding [17].

Despite a number of studies are done on the practice of exclusive breastfeeding and associated factors in Ethiopia, no single study was done which shows the magnitude and associated factors for the first time mothers. Therefore the purpose of this study was to assess exclusive breastfeeding and associated factors among first time mothers with infants less than six months old in Bahir Dar City, North West Ethiopia.

Methods And Materials

Study setting and participants

A community based cross sectional study was carried out from March to April, 2016. The study was conducted in Bahir Dar city which is located in Amhara National Regional State, Ethiopia. It is situated on the southern shore of [Lake Tana](#), the source of the [Blue Nile](#). The city is located approximately 578 kilometers northwest of Addis Ababa, the capital city of Ethiopia. Based on the 2007 Census conducted by the [Central Statistical Agency](#) of Ethiopia, the city has a total population of 221,991, of whom 49% are men and 51% are women. From female population around 66% are reproductive age groups. The city has nine administrative sub cities. Regarding to health care delivery system; the city has one governmental specialized referral hospital, one governmental general hospital, two private hospitals, ten health centers, and a number of specialized private clinics, pharmacies and drug stores which give services for the population of the city[18, 19].

Sample size and sampling technique

The sample size was calculated using single population proportion formula by considering the following assumptions; $P=50\%$; there is no known prevalence done in Ethiopia for first time mothers, level of confidence = 95%, margin of error (d) = 5%. By considering 10% non-response the final sample size was 423.

All of the nine sub cities of Bahir Dar which are called (Tana, Belay Zeleke, Hidar11, Fasilo, Gingot20, Gish Abay, Shumabo, Shimbt, and Sefeneselam) in local language were included in the study to get adequate sample of first time mothers. The total sample size was proportionally allocated to size to select study participants from each sub city. Finally each participant was selected by using simple random sampling technique i.e., a lottery method was used. The registration of mothers who have a child less than six months was obtained from local health extension workers record folder and was used to get the list of children of first time mothers in each sub city. The actual age of the infant was determined by asking the mother and reviewing the birth certificate card.

Measurement

A structured interviewer administered questionnaire was used to collect data from participants of the study. The questionnaire was constructed by adopting and modifying from Ethiopian Demographic Health Survey (EDHS) [20] and other studies previously done on similar topic [21-23]. A 24 hours recall infant diet method was used to determine the practice of exclusive breastfeeding. First, the English version of the questionnaire was prepared. Then it was translated to Amharic version (*local language*) and translated back to English to check its consistency and accuracy. The questionnaire included sociodemographic characteristics such as age, marital status, ethnicity and religion. Items to assess maternal health care service utilization, breastfeeding related practices, breastfeeding information and knowledge were also included. In addition to these, the tool contains items for assessing barriers and supporting system of exclusive breastfeeding. Three diploma nurses and two Bachelor of Science nurses were recruited as data collectors and supervisors respectively. In order to ensure data quality, training was given for supervisors and data collectors for two consecutive days on the overall content of questionnaire, how to approach participants and data collection process.

Operational definitions

Exclusive breastfeeding: If an infant was fed only breast milk (with the exception ordered medicines and vitamins by health professionals) one day (24 hrs.) before the survey was conducted [12, 21].

Predominant breastfeeding: If an infant mainly took breast milk with non-milk liquid foods such as plain water, tea, salt/sugar solution and juices one day (24 hrs.) before the survey was conducted [12, 21].

Mixed breastfeeding: If an infant was fed breast milk with addition of liquid foods like cow milk and formula milk and soft foods like mashed potatoes/meat, porridge, egg, butter one day (24 hrs.) before the survey was conducted [21].

Exclusive replacement feeding: If an infant was fed other foods without breast milk one day (24 hrs.) before the survey was conducted [21].

First time mother: A mother who gives a birth for the first time[17].

Husband support: Husband who supports, encourages and promotes the mother's breastfeeding practice[24].

Statistical analysis

The collected data were checked manually by supervisors and the principal investigator for its completeness and consistency. Then, it was coded and entered into EPI Info version 3.5.3 and transferred to SPSS version 20 for analysis. Descriptive statistics was used to summarize the socio-demographic characteristics' of the study participants and the

prevalence of exclusive breastfeeding. To identify factors associated with exclusive breastfeeding practice, binary logistic regression analysis was performed at two levels. First bivariate logistic regression was performed to each independent variable with the independent variable and those variables with a p value < 0.25 were included in the final model (multivariable analysis). Strength of association was measured using odds ratio, and 95% confidence intervals. Statistical significance was declared at P value <0.05.

Results

Sociodemographic characteristics

All participants in this study were first time mothers living in Bahir Dar city. From 423 eligible first time mothers, 400 were interviewed in this study which made the response rate 95.0%. The mean age of mothers was 26 years with standard deviation of (SD±4.08). More than half of participants (52.2%) were between the age of fifteen and twenty years old. More than two third of mothers were from Orthodox Christianity religion. Majority of study participants (87.3%) were from Amhara ethnic group. Regarding to educational status around one third of mothers (33%) were not educated at all while another one third of mothers (31.5%) were educated at college and above levels. The average household income of respondents who disclosed their household income was 3762 Ethiopian birr per month with standard deviation (SD±2136.48) (*Table 1*).

Maternal and infant health service utilization characteristics

Almost half of infants (53.5%) were male babies. More than half of infants were aged between 0-90 days. Majority of mothers (90.8%) attended antenatal care follow up and majority of mothers (60.2%) attended in health center. On the other hand, only one hundred thirty three (36.6%) attended more than three antenatal care visits. More than two third of mothers (76.3%) received breastfeeding counseling during their antenatal care visits. Regarding to delivery, majority (93.8%) of mothers delivered in health institution and majority 329(82.2%) of mothers were delivered by normal/spontaneous vaginal delivery (*Table2*).

Exclusive breastfeeding and related practices

Prevalence of exclusive breastfeeding practice a day (24hrs.) before the survey was 57.3 % (95%CL: 52.3%, 62%). Among first time mothers who did not exclusively breastfeed, seventy two (18.3%) gave mixed feeding, sixty one (15.3%) gave predominant breastfeeding and thirty eight (9.5%) gave formula feeding to their infant. Majority (91.2%) of mothers gave colostrum to their infant. Among mothers who did not practice exclusively breast feeding, the main reasons mentioned were; lack of information about exclusive breastfeeding 133(33.8%), lack of time due to work demand 101(25.3%), insufficient breastfeeding 72(18%), breast complication 55 (13.5%) and maternal illness 37 (9.3%) (*Table3*).

Information, knowledge, barriers and supporting systems of exclusive breastfeeding

Regarding to knowledge and information about breastfeeding 316(79%) mothers were found to have adequate knowledge about breastfeeding while 344(86%) were informed about breastfeeding. For mothers who were informed about breastfeeding the main source of information mentioned were: television (49.5%), radio (20.3%), health extension workers (20%), volunteer health workers (5%) and friends/relatives (5.3%). Concerning breast problem, around two third of mothers (51.5%) faced some type of breast problem. Among mothers faced breast problems, the main problems faced were: mastitis (41.4%), abscess (32.9%) and sore/cracked nipples (25.7%). Regarding to supporting system of mothers in infant care and breastfeeding, around 357(89.5%) were supported by their husband. Among employed mothers, less than half (44.5%) were supported by their organization. On the other hand, few mothers (13%) had got support from cultural system of their community (*Table 4*).

Factors associated with exclusive breastfeeding practice

First binary logistic regression analysis was carried out to select variables having association with EBF practice. Then, eight variables were retained for final model analysis. Sex of infant, maternal age, number of antenatal care visits, and husband support, informational status, breast problems and type of family were the independent predictors of exclusive breastfeeding.

From these independent predictors; current marital status, number of ANC visits, husband support, breast problem and type of family were significantly associated with exclusive breastfeeding practice in multivariable logistic regression analysis.

Husband support was significantly associated with exclusive breastfeeding practice. Mothers who were supported by their husband were more likely to practice exclusive breastfeeding (AOR 3.658, 95%CI: 2.132, 6.278) than their counter parts. Similarly, breast problem was significantly associated with exclusive breastfeeding. Mothers who did not face breast problems were more likely to practice exclusive breastfeeding (AOR 3.658, 95% CI: 2.132, 6.278) than mothers who faced breast problems. At the same time, current marital status was significantly associated with exclusive breastfeeding practice. Women who are not currently married were almost three times more likely to practice exclusive breastfeeding (AOR: 2.787, 95 %CI 1.083, 7.171) than their counter parts.

Mothers who had four or more antenatal care follow up visits were almost 2.5 times more likely to feed breast milk their infants exclusively (AOR 2.512, 95%CI: 1.494, 4.233) than mothers who had less than three antenatal care follow up visits. In the same way, type of family was associated with exclusive breastfeeding practice. Mothers who had nuclear family were less likely almost by half to practice exclusive breastfeeding (AOR 0.48, 95%CI: 0.231, 1.001) than mothers who had extended family (*Table 5*).

Discussion

Although the health benefit of breastfeeding for mothers and children is well known, the prevalence of exclusive breastfeeding was low in the current study area. The prevalence of exclusive breastfeeding in this study area preceding 24hrs of the survey was 57.3% (95% CL: 52.3%, 62%). The result was higher than the current global prevalence (40%) but far lower than the 2030 target (70%) [25]. The result was consistent with the national prevalence from 2016 EDHS 58% [14]. It is also relatively consistent with studies conducted in; Motta town, Ethiopia 50.1%[21], Gahanna 64% [26], Debre markos, Ethiopia 60.8% [27], Ecuador 62.8% [28] and Hawassa, Ethiopia 60.9% [29]. On the other hand, the result was higher than the studies done in; Saudi Arabia 0.8–43.9% [30], Nigeria 33.5% [31], Papua New Guinea 17% [32], Democratic Republic Congo 39% [33], Addis Ababa, Ethiopia 29.3% [34] and North West Ethiopia 30.7%[35]. However, the result was lower than studies conducted in; Debre Birhan, Ethiopia 68.6% [11], Afar, Ethiopia 81.1% [36], Tigray Ethiopia 70.2% [37]. The difference could be due to methodological variation between studies and differences in socio-cultural and socio-economic dissimilarities between mother infant dyad and other differences like health care service utilization between the current study population and referenced population.

In the current study marital status was significantly associated with exclusive breastfeeding. Unexpectedly, mothers who are not currently married were more likely to practice exclusive breastfeeding. The result is similar with a study done in Ethiopia [12]. The explanation behind might be mothers who are not married could not be influenced by their mother in law to give other feedings to their infants. This might also be that according to Ethiopian culture, most first time mothers are under the care of their family. This might help them get support from their family to practice exclusive breastfeeding. A study from Kenya [38] confirmed that family support is a key factor in the success of exclusive breastfeeding. Otherwise the result is dissimilar with studies done in; North west Ethiopia [35], Ghana [39] and Democratic Republic Congo [40] in which married women were more likely to practice exclusive breastfeeding than mothers who are not married. The difference could be due to methodological variation and different sociodemographic characteristics of study population between the current study and the previous studies.

The current study indicated that mothers who had more frequent antenatal care visits (≥ 4) were more likely to practice exclusive breastfeeding. The finding is consistent with studies carried out in; Nigeria[41] and Malawi [42]. The finding highlights mothers who have more frequent antenatal care follow up could get adequate breastfeeding counselling and could have knowledge about the importance of exclusive breastfeeding. Actually, antenatal care visit is an entry point to improve mothers' breastfeeding behavior by providing nutritional counseling and education. It is also evident that antenatal breastfeeding counseling significantly improves EBF practice [43]. Although it has been proven that antenatal breastfeeding counselling enhances breastfeeding practice in previous studies [21, 34], it was not associated with exclusive breastfeeding in the current study.

On the other hand, this study indicated that husband support was positively associated with exclusive breastfeeding practice. The finding is in line with the study conducted in Motta, Ethiopia[21], United Kingdom [24] and Nepal [44]. The study in Nepal [44] revealed that mothers who got support from their husbands were 10 times significantly more likely to practice exclusive breastfeeding. The possible explanation might be due to husband plays important role in the decision making about family and household affairs and which affects many aspects of family life including infant feeding practices. Husbands' participation in breastfeeding can be a strong approach for encouraging women to breastfeed and continue breastfeeding for longer time duration. Mannion et al.[45] showed that mothers feel more capable and confident about breastfeeding when they perceive their partners are supportive by way of verbal encouragement and active involvement in breastfeeding activities. Nepali et al[44] also showed that husbands' support in terms of coping with breastfeeding challenges, encouraging to breastfeed, assisting in breastfeeding activities are essential to boost up the mother's breastfeeding skills.

This study also revealed that mothers without breast complication were more likely to practice exclusive breastfeeding than mothers who had any of the breast problems. The finding is similar with the study done in; Hawassa, Ethiopia[29], Zagazig, Egypt[46]. This might be because absence of breast complications like engorgement, nipple pain or sore nipple, mastitis and nipple abscess might facilitate success in exclusive breastfeeding practice. On the other hand, when mothers face breast problem; they could give other feedings like cow milk and formula milk to maintain nutritional need of the infant. Studies revealed that persistent nipple complication is one of the most common reasons given by mothers for ceasing exclusive breastfeeding[47].

Family structure had an association with exclusive breastfeeding. A mother living in nuclear family was less likely to practice exclusive breast feeding. The finding is in parallel with the study done in rural Indian mothers [48] in which mothers from nuclear family had high risk of cessation of exclusive breastfeeding than mothers from joint family. This might be because mothers from nuclear family lack support from members of extended family. When mothers get support from members of family they could have better time and energy to practice exclusive breastfeeding. On the other hand, Nyanga NM et al[38] revealed that family support is a key factor in the success of exclusive breastfeeding with special focus on partner involvement.

Conclusion

The prevalence of exclusive breastfeeding in the study area is consistent with the national prevalence from 2016 EDHS, higher than the current global prevalence and far lower than the 2030 target of exclusive breast feeding. The independent predictors of exclusive breastfeeding in the current study were; maternal age, number of antenatal care visits, husband support, breast complication and type of family. Recommendations forwarded to improve exclusive breastfeeding were; involving partners during infant feeding counseling and education, creating awareness about the benefits of breastfeeding for the baby and the mother to family members and the whole community. In addition to these, health care professionals should give special attention for the first time mothers since they don't have previous experience of breastfeeding. Moreover, the government of Ethiopia should make arrangements for prenatal education for expectant mothers and fathers specifically for the first time parents.

Declarations

Ethics approval: Ethical approval was obtained from the research review ethical committee of the Addis Ababa University, and permission letter was obtained from Amhara regional health office. The data collectors informed each respondent about the study and verbal consent to participate was obtained from mothers of the child. Verbal consent was obtained from each study participants and confidentiality was assured for all the information provided. Moreover, personal identifiers were not being included on questionnaire.

Consent for publication: Not applicable

Availability of data and material: The data of this study can't be shared publically due to presence of sensitive (confidential) participants' information.

Competing interests: The author declared that there is no any competing interest.

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Authors' contributions: The author TA contributed to the design of this study. The author conceived and designed the study, analyzed and interpreted data; drafted the manuscript for important intellectual content. TA reviewed and revised the draft further and approved the final version for submission.

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Abbreviations

AOR
Adjusted Odds Ratio
ANC
Antenatal Care
CL
Confidence Level
COR
Crude Odds Ratio
EDHS
Ethiopian Demographic Health Survey
HSDP
Health Sector Development Program
SD
Standard Deviation
SDG
Sustainable Development Goal
WHO
World Health Organization

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Tables

Table1. Socio-demographic Characteristics of first time mothers with their infants aged less than six months old, in Bahirdar City, Amhara Regional, North west State Ethiopia, 2016.

Variable	Category (n=400)	Frequency	Percent (%)
Age of mother	15-29 years	209	52.2
	30-49 years	191	47.8
Religion	Orthodox	279	69
	Muslims	95	23.7
	Others ^{1*}	29	7.3
Ethnicity	Amhara	349	87.3
	Oromo	33	8.3
	Others ^{2*}	18	4.4
Educational Level of mother	No formal education	132	33
	Primary school(1-8)	69	17.3
	Secondary school(9-12)	73	18.3
	College and above	126	31.5
Occupation of mother	employed	295	73.8
	Unemployed	105	26.2
Currently married	No	54	13.5
	Yes	346	86.5
Educational level of husband(n=346)	Educate	155	44.8
	Uneducated	191	55.2
Husband occupation(n=346)	Employed	185	53.5
	Unemployed	161	46.5
Type of family	Nuclear	325	81.2
	Extended	75	18.8
Household income	≤500 birr	3	0.8
	501-1499 birr	32	8
	≥1500 birr	366	92.1

Others 1*=catholic, protestant, Jehovah; Others2*=Tigrie, Agew, gurage;

Table 2. Maternal and infant health service utilization characteristics of study participants in Bahidar City, Amhara Regional State, North West Ethiopia, 2016.

Variables	Category(400)	Frequency	Percent (%)
Sex of infant	Male	214	53.5
	Female	186	46.5
Age of infant	0-90 days	210	52.5
	91-120 days	99	24.8
	121-150 days	39	9.7
	151-180 days	52	13
ANC follow up	Yes	363	90.8
	No	37	9.2
Place of ANC	Hospital	67	18.5
	Health Centre	222	61.2
	Private clinic	74	24.4
Number of ANC visits(n=363)	≥4 visits	133	36.6
	<3 visits	230	63.4
Breastfeeding counselling (ANC)	Yes	277	76.3
	No	86	23.7
Place of birth	Health institution	375	93.8
	Home	25	6.2
Mode of delivery	Normal/vaginal	392	82.2
	Caesarian section	71	17.8

ANC: antenatal care

Table3.Breastfeeding related practices of first time mothers who have infants less than six months in Bahidar City, Amhara Regional State, North West Ethiopia, 2016.

Variables	Category(n=400)	Frequency	Percent (%)
Infant feeding practice 24hrs before the survey	Exclusive breastfed	299	57.3
	Predominant breastfed	61	15.3
	Mixed feeding	72	18.3
	Formula feeding	38	9.5
Who influenced you to give feedings other than breast milk	My own decision	92	24.6
	My husband	108	28.9
	My mother	76	20.3
	Mother in law	58	15.5
	Others ^a	40	10.7
Colostrum feeding	Yes	365	91.2
	No	35	8.8
Reasons for not breastfed exclusively	Lack of information on exclusive breastfeeding	135	33.8
	Lack of time due to work demand	101	25.3
	Insufficient breastfeeding	72	18
	Breast problem/disorder	55	13.8
	Maternal illness	37	9.3

^a= Friends, neighbors, other members of extended family

Table4.Information, knowledge, barriers and supporting systems of exclusive breastfeeding practice among first time mothers who have infants less than six months in Bahidar City, Amhara Regional State, North West Ethiopia, 2016.

Variables	Responses	Frequency	Percent (%)
Informational status	Informed	344	86
	Not informed	56	14
Source of information	Television	198	49.5
	Radio	81	20.3
	Health extension workers	80	20
	Volunteer health workers	20	5
	Friends and relatives	21	5.3
Knowledge about breastfeeding	Knowledgeable	316	79
	Not Knowledgeable	84	21
Any breast complication	No	194	48.5
	Yes	206	51.5
Type of complication	Abscess	12	32.9
	Mastitis	28	41.4
	Sore/cracked nipples	9	25.7
Management of complication	Went to clinic	169	42.2
	Others ^{1*}	231	57.8
Husband support	Yes	357	89.5
	No	42	10.5
Religious father support	Yes	165	41.3
	No	235	58.7
Cultural support	Yes	52	13
	No	348	87
Organizational support	Yes	171	45.5
	No	226	56.5

^{1*} express breast milk, rub local herbs on it.

Table5. Factors associated with exclusive breastfeeding among first time mothers having infants less than six months in Bahir Dar City, Amhara Regional State, North west Ethiopia, 2018.

Variable		Exclusive breastfeeding		COR (95%CL)	AOR (95%CL)
		Yes (N& %)	No (N& %)		
Sex of infant	Male	166(77.6%)	48(22.4%)	2.135(1.380,3.304)	
	Female	115(61.8%)	71(38.2%)	1	
Maternal age	15-29	139(66.5%)	70(33.5%)	1	
	30-49	142(74.3%)	49(25.7%)	1.459(0.946,2.251)	
Currently married	No	46(85.2%)	8(14.8%)	2.716(1.240,5.948)	2.787(1.083,7.171)*
	Yes	235(67.9%)	111(32.1%)	1	1
# of ANC follow up	≥4 visits	176(76.5%)	54(23.5%)	2.228(1.405,3.533)	2.512(1.494,4.233)*
	<3 visits	79(59.4%)	54(40.6%)	1	1
Husband support	Yes	264(73.9%)	93(26.1%)	4.613(2.370,8.980)	4.146(1.899,9.051)*
	No	16(38.1%)	26(61.9%)	1	1
Informational status	Informed	238(69.2%)	106(30.8%)	1	
	Not informed	43(76.8%)	13(23.2%)	1.473(0.760,2.854)	
Breast problem	No	160(82.5%)	34(17.5%)	3.306(2.082,5.250)	3.658(2.132,6.278)*
	Yes	121(58.7%)	85(41.3%)	1	1
Type of family	Nuclear	221(68.0%)	104(32.0%)	0.531(0.288,0.980)	0.48(0.231,1.001)
	Extended	60(80.0%)	15(20.0%)	1	1

*p-value <0.05 (significant); # =Number