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EXCLUSIVE BREAST-FEEDING PRACTICE AND ITS ASSOCIATED FACTORS AMONG MOTHERS OF < 12 MONTHS OLD INFANTS IN KONSO ZONE, SOUTHERN ETHIOPIA, 2023

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Abstract

Introduction: Breast milk is superior to other products when it comes to a child's growth and development, and adequate nutrition during early life secures these things.

Methods: A community-based cross-sectional study was carried out among mothers of <12-month-old infants in Konso Zone. The sample size required for this study was 462. The final sample size was selected by a systematic random sampling technique. Data was collected using a structured interviewer-administered questionnaire. The data was analyzed using IBM SPSS Statistics version 22.

Result: In this study, the prevalence of EBF practice was 279 (63.1%; 95% CI: 58.6%, 67.6%). Out of the total study participants, 345 (78.1%) mothers practiced timely initiation of breastfeeding within one hour of delivery. In this study, those mothers who had not given any pre-lactation food or fluid were 2.68 times more likely to exclusively breastfeed their child than those mothers who had given pre-lactation food or fluid [AOR = 2.68: 95% CI (1.36–5.29)].

Conclusion: The prevalence of exclusive breastfeeding practice in the current study was lower than the national and global recommendation levels. Therefore, we recommend counseling pregnant women about breast feeding

(BF) issues during ANC services, enabling all mothers to get access to post-natal care (PNC) services, and encouraging BF initiation within one hour.

.**Key words:** Exclusive breast feeding , Under twelve months and Konso Zone

Abbreviations

BPI: Breast feeding Performance Index

CI: Confidence Interval

ANC: Antenatal Care

EBF: Exclusive Breast Feeding

EDHS: Ethiopia Demography Health Survey

SPSS: Statistical Package for Social Science

WHO: World Health Organization

Introduction

The healthiest way to feed a baby is to breastfeed because it provides the nutrients required for healthy growth and development during the first six months of life. Additionally, breastfeeding has a number of positive health effects on the mother and the child (1, 2). Optimal breastfeeding practices are regarded first among the most effective strategies to improve the health of children (3). With the exception of oral rehydration solutions, drops, or syrups containing vitamins, mineral supplements, or medications. World health organization(WHO) defines "EBF as an infant receiving only breast milk from the mother or a wet nurse, or expressed breast milk, and no other liquids or solids, including water" (4). According to WHO, optimal breastfeeding is defined as commencing breastfeeding within one hour of delivery, focusing only on breastfeeding for the first six months of life, continuing to breastfeed for up to two years, and beginning appropriate supplemental eating at six months of age. But a lot of babies and kids don't get the best nutrition possible. For instance, between 2015 and 2020, only over 44% of newborns globally between the ages of 0 and 6 months received just breast milk (5). One of the most significant indications for the breastfeeding performance index (BPI) is the practice of exclusive breastfeeding. Seven metrics are used to quantify BPI: formula provided in the last 24 hours, any liquid (apart from medicine), bottle feeding, prolateral feeding, early breastfeeding initiation, any solid feeding and current breastfeeding (6). Preschoolers who have low and medium BPI scores are at risk for 45% of infectious, 30% of diarrheal, and 18% of acute respiratory fatalities (7). Ethiopia is still a long way from reaching the recommended percentage of EBF. For a variety of reasons, including age, parity, utilization of antenatal services, low educational attainment, high mother workloads, unhygienic conditions, poor maternal knowledge, assistance during delivery, length of stay at home, ethnicity, and traditional and cultural beliefs, breastfeeding practices are inadequate nationwide in Ethiopia (8).This study intends

to close the research gap by evaluating the prevalence of exclusive breastfeeding practices and the factors associated with them in Karat town, Konso Zone, based on the body of existing literature.

Methods

Study Design, Setting and Population

A community-based cross-sectional study was carried out among mothers of <12-month-old infants from August 2023 to September 2023. Karat town is located in Konso Zone, southern Ethiopia, and is located 750 km from Addis Ababa to the south. The projected total population of the town was 47,119. Of these, 23,088 are men and 24,030 are women. There are 47 Kebeles (i.e., the smallest unit of administration) in the Konso Zone, three of which are urban and forty-four of them are rural. A total of 62,795 households reside in the Konso Zone. A total population of 307,705 people reside in the zone. Karat town is one of the three urban Kebeles. A total of 2245 households are located in the town. The town had nine government health facilities (7 health posts, 1 health center, and 1 primary hospital) that provided primary health services to the community. The study population is all mothers with infants aged under 12 months living in Konso Zone, Southern Ethiopia, at the time of the data collection.

Sample Size Determination

The researcher was used to calculate the sample size by using the previous study conducted on exclusive breastfeeding practice in Sheka Zone, South West Ethiopia, which was 76% (9). The minimum sample size required for this study was determined by using the single population proportion formula.

$$n = \frac{(Z\alpha/2)2\ p\ (1-p)}{d^2}$$

Where: n= minimum sample size required for the study

Z= Standard normal distribution (Z=1.96), CI of 95% = 0.05

P= prevalence of low breastfeeding performance index 76%= (0.76) was used

d= Absolute precision or tolerable margin of error= 5 % (0.05)

$n = (1.96)^2 \times 0.76(1-0.76) = 280$

$(0.05)^2$

Consider 10% for non-respondents = 28. The sample size for this study will be 308. By considering design effect = 308*1.5 = 462.The final sample size was 462.

Sampling Procedure

A total of 47 Kebeles (i.e., the smallest unit of administration) were located in the Konso Zone, three of which were urban and forty-four of them were rural. Seventeen kebeles (2 urban and 15 rural) were selected using a simple random sampling method (lottery method). The number of study participants was proportionally distributed to each kebele, depending on the number of mother-infant pairs in each kebele. As a sampling frame, the local health extension worker's registration form for women with infants under the age of twelve months was used. According to the registration logbook of HEWs, a total of 31,397 mothers had infants aged under 12 months. In order to obtain the required sample size in each Kebele, the proportional allocation technique was utilized. The final sample of the study was selected by employing a systematic random sampling technique. The sampling fraction was calculated by dividing 11,356 by 462. The sampling interval was 25. Finally, the study units were selected at sample intervals until the required sample size was achieved.

Inclusion criteria

Mothers who had an infant less than 12 months old and available at the time of data collection.

Operational definitions

Exclusive breastfeeding: an infant's consumption of human milk without supplementation of any water, juice, nonhuman milk, or foods except for vitamins, minerals, and medications starting from birth until six months of age (10)

The practice of EBF will be assessed by asking the mother, "Have you exclusively breastfed your child during the first 6 months of life?" If the infant is fed only breast milk (with the exception of ordered medicines and vitamins by health professionals), the answer will be "yes," otherwise "no" (11).

Timely initiation of breastfeeding: If an infant within one hour (including one hour) of birth is put on the mother's breast to feed (12).

Data collection tool , procedures and quality management

A pilot study of 10% was done in not-selected kebeles two weeks before the start of actual data collection, and based on the results of the pilot study, the questioner was modified and the time needed for the interview was estimated . Data was collected using a structured interviewer-administered questionnaire adopted from the Ethiopian Demographic Health Survey (EDHS) of 2016 and other related literature (8–9).The questionnaire had three components, which consist of sociodemographic characteristics of the study participants, maternal and child health service-related factors, knowledge and feeding practices, and knowledge of child feeding practices. The questionnaire was prepared in English, translated into the "Konsogna" version, and then returned to the English version. The researcher gave the data collectors a one-day training. Four well-experienced nurse professionals collected the data, and two MPH in public health professionals were recruited to supervise the data collection process. The data collector goes to the home of the participants, and by using a code given during the sampling period, they commence data collection. The interview was held separately to maintain the confidentiality of the respondents. Each questionnaire was checked for its completeness and consistency at the end of the day.

Statistical Analysis

The data was checked after each data collection for completeness and consistency. The data was entered, cleaned, and coded into EPI Data Manager version 3.3 and analyzed using IBM SPSS Statistics version 22. A descriptive statistic was used to summarize the sociodemographic characteristics and rate of exclusive breast feeding. Bivariable logistic regression was done to determine the presence of an association. To avoid unstable estimates in the subsequent model, only variables that reached a p-value less than 0.2 at bivariable analysis were kept in the subsequent model analysis. Multivariable logistic regression analysis was used to show significant associations between variables and Breastfeeding Performance Index (BPI) scores. A point estimate of the odds ratio (OR) with a 95% confidence interval (CI) was determined to assess the strength of the association between independent and dependent variables. For all statistically significant tests, a p-value <0.05 was used as a cut-off point.

Ethical Consideration

Ethical clearance was obtained from Addis Ababa Business and Medical College. A supportive letter was obtained from the Konso Zone Health Bureau. From the Zonal Health Bureau, an official letter was written to the respective study, the woreda Health Bureau, and the selected kebeles. Study participants were informed about the aim of the study, the benefits, risks, and confidentiality of the information. Voluntary participation was ensured, and participants are free to opt out. Study participants were informed that they had the right to withdraw from the study at any time, and informed verbal consent was obtained from each study participant before interviewing.

Results

Socio-demographic characteristics of the parents

A total of 442 study participants were successfully involved in the study, yielding a response rate of 95.6%. The majority of study participants, 304 (68.8%), 431 (97.5%), 278 (62.9%), and 435 (98.4%), were orthodox, Konso in ethnicity, rural in residence, and married, respectively. Of the study participants, 207 (46.8%) had no formal education. Regarding occupational status, 180 (40.7%) were farmers. Their ages ranged from 15 to 47 years, with a mean age of 28.81 ± 5.70 years. The average monthly income was 3696 ETB and ranged from 300 to 25000 (Table 1).

Table 1: Socio-demographic characteristics of mothers in Konso Zone, Southern Ethiopia, 2023 (n=442).

Socio-demographic Variables		**Frequency (%)**
Age group	< 25	127 (27.8%)
	25-29	136 (30.8%)
	30-34	42 (9.5%)
	35-39	46 (9.9%)
	40-49	22 (5%)
Marital status	Married	435 (98.4%)
	Divorced	1 (0.2%)
	Widowed	6 (1.4%)
	Single	
Religion	Orthodox	133 (30.1%)
	Protestant	304 (68.8%)
	Catholic	1 (0.2%)
	Others	4 (0.9%_
Ethnicity	Konso	431 (97.5%)
	Amhara	6 (1.4%)
	Other	5 (1.1%)
Residence	Urban	164 (37.1%)
	Rural	278 (62.9%)
Educational status	Unable to read and write	207 (46.8%)

	Primary school	136 (30.8%)
	Secondary school	30 (6.8%)
	College and above	69 (15.6%)
Husband educational status	Unable to read and write	156 (35.3%)
	Primary school	113 (25.6%)
	Secondary school	57 (12.9%)
	College and above	116 (26.2%)
Occupational status	Farmer	180 (40.7%)
	Daily Laborer	42 (9.5%)
	Merchant	41 (9.3%)
	Employed	10 (2.3%)
	Housewives	127 (28.7%)
	Others	42 (9.5%)
Family size in their home	Less than five	137 (31%)
	Five and more	305 (69%)

Prenatal and obstetric characteristics in this study

429 (97.1%) were mothers who were responsible for caring for their child. The majority of the infants, 2251 (56.8%), were male. Her ages ranged from one month to twelve months, with a mean age of 6.63 ± 3.14 months. Almost all 413 (92.45) of the infants were delivered through a singleton birth, and 383 (86.7%) infants were born at health facilities. Furthermore, 423 (95.75) infants were delivered through spontaneous vaginal delivery. Many of the respondents, 368 (83.3%), received at least one antenatal care (ANC) visit. Moreover, 300 (67.9%) received postnatal care follow-up (Table 2).

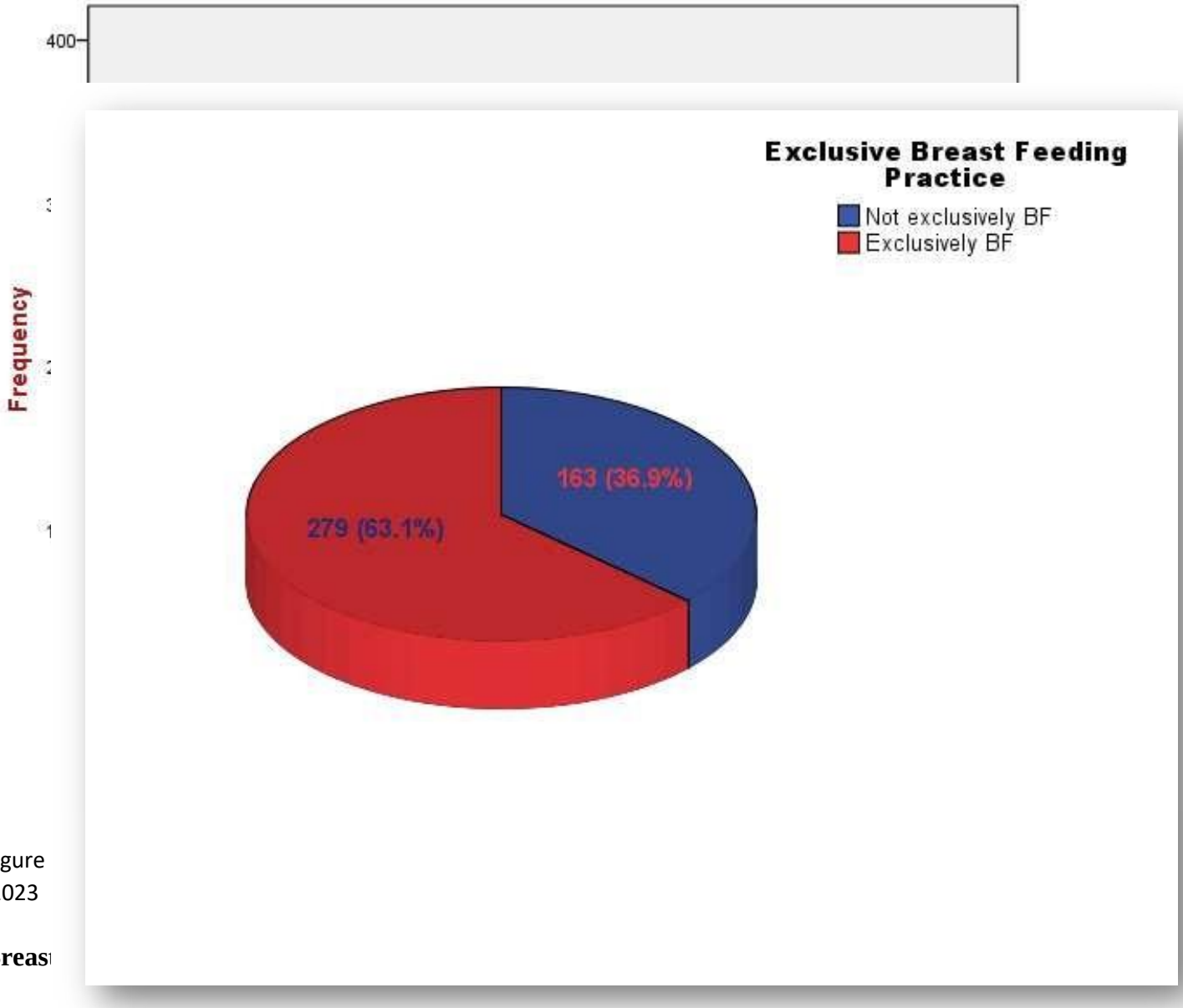
Table 2: Prenatal characteristics of <12 months old infant and obstetric characteristics of the mothers in Konso Zone, Southern Ethiopia, 2023 (n=442).

Variables	Frequency
Type of birth	
Singleton	413 (93.4%)
Multiple	29 (6.6%)
Place of delivery	

Home	59 (13.3%)
Health institution	383 (86.7%) Mode of delivery
Spontaneous vaginal delivery	423 (95.7%)
Cesarian section	19 (4.3%)
Antenatal care utilization	
Yes	368 (83.3%)
No	74 (16.7%)
Postnatal care utilization	
Yes	300 (67.9%)
No	142 (32.1%)
Infant gender	
Male	251(56.8%)
Female	191 (43.2%)
Infant age	
Six month and below	215 (48.6%)
Seven to less than twelve months	227 (51.4%)

Breastfeeding information and knowledge

The majority, 305 (69%) of the mothers, had received breastfeeding information during their ANC visits. The main sources of nutrition information about exclusive breastfeeding practice were 338 (76.5%) from health professionals and 59 (13.3%) from the Women Development Army (Figure 1).



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2). Out of the total study participants, 345 (78.1%) mothers practiced timely initiation of breastfeeding within one hour of delivery (Figure 5). The majority of the mothers, 369 (83.5%), had fed colostrum, and 73 (16.5%) of them had squeezed it out and discarded it. The main reasons for squeezing out colostrum were that they believed it might cause ill health effects on their infants and cultural reasons. One hundred two mothers (23.1%) gave pre-lacteal feed such as milk 48 (10.9%), water 5 (1.1%), and others 49 (11.1%), such as Aabish/fenugreek solution. From a total of 227 infants who were greater than six months old, 223 (98.2%) infants were started on complimentary feeding (took food or fluid in addition to breast milk). The majority, 190 (83.7%) of the infants took “Atimit & Bula.”.

Figure 2: The prevalence of exclusive breastfeeding practice among < 12 months old infant in Konso Zone, Southern Ethiopia, 2023 (n=442)

Table 3: Breast-feeding practice of the mothers who had <12 months old infant in Konso Zone, Southern Ethiopia, 2023 (n=442).

Variables		Frequency
Have you exclusively breastfed your child during the first 6 months?		
Yes		279 (63.1%)
No		163 (36.9%)
Have you practiced timely initiation of breastfeeding within one hour of delivery?		
Did you give the child (NAME) pre-lactation food/fluid?	**Yes**	345(78.1%)
	No	97(21.9%)
Did you squeeze out and throw the first milk (colostrum)?	**Yes**	102(23.1%)
	No	340(76.9%)
Frequency of breastfeeding in 24 hours		
Less than eight times		196(44.3%)
Eight and more times		246(55.7%)
Did you give the child additional food or fluid other than breast milk in the past 24 hours?		
Yes		223(98.2%)
No		4(1.8%)

Factors associated with exclusive breastfeeding practice

All independent variables were entered into a a bivariable logistic regression. Socio-demographic variables such as age of mother, residence, occupation, maternal education, and husband education were crudely associated with exclusive breastfeeding practice. Maternal health service-related factors such as ANC follow-up, place of delivery, mode of delivery, and postnatal care follow-up Infant characteristics—sex of the infant, birth type, and infant feeding practices such as colostrum feeding, pre-lacteal feeding, and early initiation of breastfeeding—were crudely associated with exclusive breastfeeding practices. All variables with aah p-value < 0.25 were entered into the multivariable logistic regression model. The Hosmer and Lemeshow test results were done at a p-value of 0.077. The p-value was not significant. So, the goodness of fit test was fit, and binary logistic regression can be utilized.

During the multivariable logistic regression analysis, the odds of exclusive breastfeeding practice among mothers whose husbands were college and above were 8.69 times higher compared to study participants who were unable to read and write [AOR = 8.69: 95% CI (2.75–27.4)]. The odds of exclusive breastfeeding practice among mothers who had singleton birth type were 8.85 times higher compared to mothers who had multiple birth type [AOR = 8.85: 95% CI (1.36–57.3)]. Those mothers who had given birth via spontaneous vaginal delivery were 4.82 times more likely to exclusively breastfeed their child compared to those who were delivered by cesarian section delivery [AOR = 4.82: 95% CI (1.06–21.87]. In this study, the odds of exclusive breastfeeding practice among mothers who had ANC follow-up were 19.5 times more likely than those mothers who had no ANC follow-up [AOR = 19.5: 95% CI (8.43–45.4)].

Those mothers who practiced timely initiation of breastfeeding immediately within one hour of delivery were 2.33 times more likely to exclusively breastfeed their child compared to those mothers who practiced initiation of breastfeeding within a few days [AOR = 2.33: 95%CI (1.03-5.28). In this study, those mothers who had not given any pre-lactation food or fluid were 2.68 times more likely to exclusively breastfeed their child than those mothers who had given pre-lactation food or fluid [AOR = 2.68: 95% CI (1.36–5.29)]. From a total of 227 infants who were greater than six months old, 223 (98.2%) infants were started on complimentary feeding (took food or fluid in addition to breast milk). The majority, 190 (83.7%) of the infants took “Atimit & Bula.”.

Table 4: Factors associated with exclusive breastfeeding practice in Konso Zone, Southern Ethiopia, 2023 (n=442).

Variable		Breastfeeding practice				
		Non-exclusive breastfeeding practice	*Exclusive breastfeeding practice*	COR (CI)	AOR(CI)	p-value
Age group	< 25	7(30.1%)	6(69.9%)	1	1	
	25-29	3(31.6%)	3(68.4%)	.93(0.54,1.57)	.86(0.41,1.80)	0.69
	30-34	3(52.9%)	6(47.1%)	.38(0.22,0.64)	.91(0.40,2.06)	0.83

	35-39	15(35.7%)	27(64.3%)	0.77(0.37,1.62)	0.59(0.20,1.75)	0.34
	40-49	5(22.7%)	17(77.3%)	1.46(0.50,4.26)	1.94(0.38,9.83)	0.41
Residence	Urban	54(32.9%)	110(67.1%)	1.31(0.87,1.97)	1.27(0.61,2.65)	0.51
	Rural	109(39.2%)	169(60.8%)	1	1	
Educational status	nable to read nd write	93(44.9%)	114(55.1%)	1	1	
	Primary school	45(33.1%)	91(66.9%)	1.65(1.05,2.58)	1.43(0.72,2.84)	0.29
	Secondary school	9(30.0%)	21(70%)	1.90(0.83,4.35)	1.94(0.51,7.41)	0.32
	College and above	16(23.2%)	53(76.8%)	2.70(1.45,5.03)	0.52(0.15,1.79)	0.30
Husband ducational status	Unable to read and write	72(46.2%)	84(53.8%)	1	1	
	Primary school	51(45.1%)	62(44.9%)	1.04(0.64,1.69)	1.33(0.65,2.72)	0.42
	Secondary school	25(43.9%)	32(56.1%)	1.09(0.59,2.02)	0.70(0.29,1.68)	0.43
	College and above	15(12.9%)	101(87.1%)	5.77(3.08,10.8)*	8.69(2.75,27.4)	0.00**
Occupational status	Farmer	67(37.2%)	113(62.8%)	0.52(0.24,1.14)	1.83(0.40,8.24)	0.43
	)aily .aborer	30(71.4%)	12(28.6%)	0.12(0.04,0.33)	0.44(0.07,2.63)	0.37
	Merchant	9(22.0%)	32(78%)	1.11(0.39,3.09)	2.42(0.41,14.0)	0.32
	Employed	2(20.0%)	8(80%)	1.25(0.22,6.87)	0.76(0.07,7.88)	0.82
	Housewives	45(35.4%)	82(64.6%)	0.56(0.25,1.26)	1.27(0.29,5.60)	0.74
	Others	10(23.8%)	32(76.2%)	1	1	
Type of birth	Singleton	136(32.9%)	277(63.1%)	27.4(6.44,47.3)*	8.85(1.36,57.3)	0.02**
	Multiple	27(93.1%)	2(6.9%)	1	1	
Place of delivery	Home	28(47.5%)	31(52.5%)	0.60(0.34,1.04)	0.64(0.24,1.71)	0.37
	Health institution	135(35.2%)	248(64.8%)	1	1	
Mode of delivery	Spontaneous vaginal delivery	148(35.0%)	275(65%)	6.96(2.27,21.3)*	4.82(1.06,21.87)	0.04**

	Cesarian section	15(78.9%)	4(21.1%)	1	1	
Antenatal care utilization	Yes	100(27.2%)	268(72.8%)	15.3(7.77,30.3)	**19.5(8.43,45.4)**	0.00**
	No	63(85.1%)	11(14.9%)	1	1	
Postnatal care utilization	Yes	96(32.0%)	204(68%)	1.89(1.26,2.85)*	1.89(0.94,3.81)	0.07
	No	67(47.2%)	75(52.8%)	1	1	
Infant gender	Male	106(42.2%)	145(57.8%)	1	1	
	Female	57(29.8%)	134(70.2%)	1.71(1.15,2.56)*	1.35(0.76,2.37)	0.29
Given information or counselling on BF at ANC visit	Yes	108(35.4%)	197(64.6%)	1.22(0.80,1.85)	1.04(0.54,2.03)	0.89
	No	55(40.1%)	82(59.9%)	1	1	
Have you practiced timely initiation of breastfeeding within one hour of delivery?	Do not know	9(69.2%)	4(30.8%)	0.40(0.11,1.41)	0.94(0.16,5.50)	0.94
	Immediately	114(33.0%)	231(67%)	1.84(1.13,2.98)*	2.33(1.03,5.28)	0.04**
	Within few days	40(47.4%)	44(52.6%)	1	1	
Did you give the child (NAME) pre-lactation food/fluid?	Yes	65(63.7%)	37(36.3%)	1	1	
	No	98(28.8%)	242(71.2%)	4.33(2.72,6.91)*	2.68(1.36,5.29)	0.00**
Did you squeeze out and throw the first milk colostrum)?	Yes	42(57.5%)	31(42.5%)	1	1	
	No	121(32.8%)	248(67.2%)	2.77(1.66,4.63)	1.78(0.79,3.990	0.16
Frequency of breastfeeding in 24 hours	Less than eight times	84(42.9%)	112(57.1%)	1	1	
Eight and more times		78(32.2%)	164(67.8%)	1.57(1.06,2.33)	1.47(0.82,2.65)	0.19

* Statistically significant variables with bi-variate logistic regression

** Statistically significant variables with multi-variate logistic regression

Discussion

This study aimed to assess exclusive breast-feeding practices and their associated factors among mothers of <12-month-old infants in Konso Zone, Southern Ethiopia, in 2023. Despite the benefits of EBF, there are a number of barriers that hinder the current practice. The prevalence of exclusive breastfeeding practice in the current study was 63.1%, which was lower than the national recommended level of 70% and the global recommendation of 90% (13), the study conducted in Hossana town (74%), and Enderta Woreda (70.2%) (14–15). However, it was higher

than the 2016 EDHS report, which showed that 58% of infants under the age of 6 months were exclusively breastfed (8).

Furthermore, this study was higher than recent papers in the Sub-Saharan Africa region; only 53.5% of infants in east African countries were EBF for six months (16). These variations in prevalence might be due to differences in socio-demographic characteristics, sample size, and study design since this study was a community-based study. It was consistent with studies conducted in Ghana (64%; 17), Debre Markos (60.8%), and Hawassa, Ethiopia (60.9%), Debre Berhan, Ethiopia (68.6%; 20), and Southern Ethiopia (64.8%) (10). In this study, 78.1% of mothers practiced timely initiation of breastfeeding within one hour of delivery. The findings of this study were higher than those of a study from North-West Ethiopia that showed more than two-thirds (65%) of mothers practiced timely initiation of breastfeeding (21).

Similarly, a study conducted in Horro District, Ethiopia, showed that 61.8% of mothers practiced timely initiation of breastfeeding (22). It was also higher than the Ethiopian Demographic and Health Survey (EDHS) 2016 report; only 73% of mothers started breastfeeding within one hour of birth (8). The difference may be due to maternal sociodemographic characteristics, i.e., access to information, socio-economic status, infrastructure, educational status, cross-cultural differences in breastfeeding practice, and health service utilization characteristics. In this study, 23.1% of mothers gave pre-lacteal feed such as milk (10.9%), water (1.1%), and others (49.1%), such as Aabish/fenugreek solution. This finding was higher than a study done in Horro District 14 (2.2%) and EDHS (8%) reported by EDHS 2016 (16). These differences might possibly be due to the socio-demographic, sample size, and study time differences between the study areas. Designing and implementing effective behavioral change communications is highly needed to improve this poor practice. In this study, the odds of exclusive breastfeeding practice among mothers whose husbands were in college and above were 8.69 times higher compared to study participants who were unable to read and write. This study was in agreement with previous studies from Northwest Ethiopia (21) and the Somali region (23) that showed study participants who were supported by their husbands were found to practice EBF four times more likely compared with their counterparts.

This infers that husbands play an important role in decision-making about family and household affairs, which affects many aspects of family life, including infant feeding practices. In this study, the odds of exclusive breastfeeding practice among mothers who had ANC follow-up were 19.5 times more likely than those mothers who had no ANC follow-up. The finding is consistent with studies done in North West Ethiopia (21), Nigeria (24), and Malawi (25). This indicated that antenatal care has a significant contribution to exclusive breastfeeding, and mothers who attend antenatal care follow-up could have a better opportunity to receive nutritional advice and education about infant feeding, including exclusive breastfeeding.

Previous studies demonstrated that health care professional support, breastfeeding education programs, breastfeeding promotion programs, and good access to health care in the antenatal period were reported as

facilitators of exclusive breastfeeding practice (26). Those mothers who practiced timely initiation of breastfeeding immediately within one hour of delivery were 2.33 times more likely to exclusively breastfeed their child compared to those mothers who practiced initiation of breastfeeding within a few days. This study is comparable to a cross-sectional study conducted in Nanning, China, that revealed the prevalence of EBF was positively associated with early initiation of breastfeeding (27). It might facilitate mother-infant bonding and is positively associated with EBF.

Limitation : Being a cross-sectional study, it is difficult to ascertain a cause-and-effect relationship. Lack of time and budget to conduct this study with a wider scope and setting are the possible limitations of this study.

Conclusion: In this study, the prevalence of exclusive breastfeeding practice was low. It was lower than the national and global recommendations. Out of the total study participants, three-fourths of the mothers practiced timely initiation of breastfeeding within one hour of delivery. The majority of the mothers (83.5%) had fed colostrum, while 16.5% of them had squeezed it out and discarded it. One hundred two mothers (23.1%) gave pre-lacteal feed such as milk, water, and others, such as Aabish/fenugreek solution. The husband's educational status, birth type, mode of delivery, ANC follow-up, timely initiation of breastfeeding, and being given pre-lactation food or fluid were significantly associated with exclusive breastfeeding practice.

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Consent for Publication:

Not Applicable

Data Set

All data used in this obtained upon formal request from primary researcher .

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Authors' Contribution:

Conceptualization, Investigation, and Writing (original draft: Rukiya Mohammed). Supervision and data curation: Hana Abera. Analyzed the data and wrote the manuscript: Tefera Tezera Negera. Writing, review, and editing: Kussito Kursha Kuntucha. All authors also read and approved the final manuscript of the document.

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