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OPTIMAL BREASTFEEDING PRACTICE AND ASSOCIATED FACTORS AMONG MOTHERS OF CHILDREN 24-36 MONTHS OF AGE IN TEHULEDERE DISTRICT, NORTH EAST ETHIOPIA, 2020

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LIST OF ABBREVIATIONS AND ACRONYMS

ANC	Antenatal Care
EBF	Exclusive Breast Feeding
EIBF	Early Initiation of Breast Feeding
IYCF	Infant and Young Child Feeding
KMC	Kangaroo Mother Care
NGOs	Nongovernmental Organizations
PNC	Postnatal Care
SPSS	Statistical Package for Social Science
TIBF	Timely Initiation of Breast Feeding
U5 OPD	Under Five Out Patient Department
UNICEF	United Nations Children's Fund
WHO	World Health Organization

ABSTRACT

Background: Optimal breastfeeding is among the best and effective ways to promote optimal development of children in early childhood. Recent estimates suggested that optimal breastfeeding could prevent around 12% of deaths in under-5 children every year, representing around 800,000 lives in low- and middle-income countries.

Objectives: The aim of this study was to assess the prevalence of optimal breastfeeding practice and associated factors among mothers of children 24-36 months of age in Tehuledere District, North East Ethiopia, 2020.

Methods: A community-based cross-sectional study was conducted among 522 mothers of children 24-36 months of age from March 01-26/2020. Systematic random sampling technique was used to select the study participants. Interviewer administered structured questionnaire was used to collect data from the study participants. The data was entered using epi data version 3.1 and analyzed by using Statistical Packages for Social Sciences (SPSS) version 20.0. Bivariable and multivariable logistic regression analyses were computed.

Results: Five hundred twenty-two study participants had participated in the study yielding the response rate of 99%. The prevalence of optimal breastfeeding was 44.3% (95% CI=40.1, 48.1). Access to media (AOR=2.547[95% CI=1.203, 5.395]), having male child (AOR=2.697[95% CI=1.492, 4.874]), child birth weight < 2.5 kg (AOR=4.864[95% CI=1.240, 19.080]) and 1-3 times antenatal care (ANC) visits (AOR=.282[95% CI=.154, .518]) were the factors significantly associated with optimal breastfeeding practice.

Conclusions: In this study, the prevalence of optimal breastfeeding practice was low. Access to media, sex of the child, weight of the child and number antenatal care visits were significantly associated.

Key words: Children, Optimal Breastfeeding practice, Mothers, Tehuledere District

1. INTRODUCTION

1.1. Background

Optimal breastfeeding is a practice that many countries are rallying but is challenging despite World Health Organization (WHO) and United Nations International Children Expanding Fund (UNICEF) recommended initiation of breastfeeding within the first hour of life, colostrum giving, exclusive breastfeeding up to the age of six months, on-demand breastfeeding, start of complementary feeding at 6^{th} month, and continued breastfeeding up to 2 years or beyond (1).

Optimal breastfeeding plays a key role in improving the health and development of children under-5 years, and have been shown to be associated with decreased risk of childhood diarrhea, and respiratory tract infections as well as reductions in childhood mortality (2).

There is increasingly expanding evidence on the health benefits of breastfeeding, both for the mother and for the child as well as the economic benefits that this reaps into society. The National Breastfeeding Policy and Action Plan 2015-2020 recognizes the right that all mothers' have for receiving clear and impartial information so as to be able to make a fully informed choice on how to feed their baby (3).

Recent estimates suggested that optimal breastfeeding could prevent around 12% deaths in under-5 children every year, representing around 800,000 lives in low- and middle-income countries (4).

In spite of these facts, the prevalence of optimal breastfeeding is low (only 45% of the world's newborns had initiated breastfeeding within 1 hour of birth and 43% of infants had exclusively breastfed, and 46% % of children had continued breastfeeding until 24 months of age) (5, 6).

1.2. Statement of the problem

Children continue to suffer from malnutrition and its related complications despite efforts by policy makers and health care service providers (7). About 10% of the global burden of disease among children under-five years in developing countries resulted from suboptimal breastfeeding practice (8). Globally, about 823,000 deaths of children under the age of five years could be prevented every year through optimal breastfeeding practices (9).

In a study conducted in Indonesia; low parental educational status, occupation of mothers, poor maternal knowledge, maternal age, parity, antenatal care service utilization and place of delivery were the factors for poor breastfeeding practice (10).

Despite united Nations International Children Expanding Fund and World Health Organization recommendations that children should be given optimal breastfeeding (initiate breastfeeding within the first hour of life, exclusively breastfed for the first six months, receive complementary foods with continued breastfeeding up to 2 years of age or beyond, breastfed on demand), in high-income countries, 21 per cent of babies, or more than 1 in 5, never receive breast milk (11).

Identification of the major factors associated with optimal breastfeeding practice among mothers in feeding their children for each region is essential if appropriate policies and programs are to be devised to rectify nutritional deficiencies and imbalances. Hence, this study was therefore aimed in assessing factors associated with optimal breastfeeding practice among Mothers of children 24-36 months of age in Tehuledere District.

1.3. Significance of the study

The prevalence and factors associated with optimal breastfeeding in this study area were not well known. This study investigated the optimal breastfeeding practice and associated factors among mothers of children 24-36 months of age in the study area. The findings of this study will provide an insight to policy makers, programmers, stake holders, and non-governmental organizations (NGOs) for future planning and interventions of appropriate strategies to promote and maintain optimal breastfeeding practice.

Clinicians, nurses and midwifes who work at the grass root level will get proper information in order to provide health education for mothers to wards optimal breastfeeding practice. The study finding will provide important clues for health extension workers and study participants in the study are about the importance of optimal breastfeeding practice and its associated factors. In Furthermore, the finding of this study will also help as a baseline data for researchers who are interested in carrying out further research with this regard.

2. LITERATURE REVIEW

2.1. Optimal breastfeeding practice

Optimal breastfeeding is among the best and effective ways to promote optimal development of children in early childhood, and it is an essential for the child's nutritional wellbeing, and it provides protection against child hood infections and saves infant lives, improves cognitive function, and reduces the likelihood of overweight and diabetes in later life (11).

Infant and Young Child Feeding (IYCF) Guidelines recommended that Parents must identify the staple homemade foods (as these are fresh, clean and cheap). The food should be a balanced diet comprising various (as diverse as possible) food groups / constituents in different combinations of easily obtainable and cheap fruits, green and other dark green vegetables, milk and milk products, pulses/ legumes, animal foods, oil/ butter, sugar may be added in the staples (12).

A study conducted in Indonesia in 2019 showed that a high proportion, 67 (65.6%) of mothers were breastfed their infants sub-optimally while only 48 (47.1%) mothers were breastfed their infants optimally (10). In Nigeria, optimal breastfeeding rates were very low, indicating that most children under-6 months were given other foods or liquids in addition to breast milk (8).

In 2016, optimal breastfeeding practice among employees' in Ethiopia was only 35.6% (13). Another study done in Rural Communities of Hula District, Southern Ethiopia revealed that all mothers had ever breastfed and the prevalence of optimal breastfeeding practice was 43.1% (14).

2.2. Factors associated with optimal breastfeeding practice

2.2.1 Socio-demographic factors:

A women with no formal education, number of U5 children and under five OPD visits were found to be significant determinants of optimal breastfeeding practice from a study done in South Asia (15), and a systematic review in Nigeria,2016 (16). Furthermore mothers with primary education were optimally breastfed for a longer duration (19.1 ± 3.9 months) (16).

Having access to media and breastfeeding information were associated with the promotion of optimal breastfeeding practice from a cross sectional community-based study carried out in Ethiopia,2013 and 2017 (14, 17). Paternal educational status was a significant determinant of

optimal breastfeeding practice (10, 17). Family income and family support were found to be significant predictors of optimal breastfeeding from the study conducted in Indonesia, 2019 (10, 18).

In a descriptive correlational cross-sectional study done in Saudi, 2015, employment was significantly related to returning to work as a barrier of breastfeeding practice (19). From the study in Nepal,2019, marital status, husband education, maternal level of education and income were found to significantly increase the probability of initiating CF at six months (18).

In Nigeria in 2015, optimal breastfeeding practice was affected by household income, age of mother, educational status and residence of mothers from wealthier households were more likely to exclusively breastfeed their babies compared to mothers from poorer households (8). A study conducted in Debre Berhan town, Ethiopia in 2016, showed that educational status and residence were determinants of late initiation of breastfeeding (20).

2.2.2. Maternal related factors:

A mothers with one up to three times of ANC visits were less likely to breast feed optimally from a study done in South Asia,2018 (13). A cross sectional community-based study carried out in Ethiopia (2013) to assess maternal knowledge about optimal breastfeeding practices and associated factors, maternal knowledge was associated with having antenatal care which in turn, maternal knowledge was significantly associated with the promotion of optimal child feeding practices (17). Having postnatal visit, and maternal knowledge were significant determinants of optimal breastfeeding practice from a study conducted in Indonesia (2019) (10).

PNC visit and nutritional counseling and access to maternal health services were found to significantly increase the probability of initiating CF at six months from data in Nepal, 2019 (18). Another study done in Nigeria,2015 and 2019 showed that breastfeeding was associated with age of mother frequent antenatal care (ANC) visits, parity and birth interval (8, 21).

2.2.3. Child related factors:

A study done in South Asia,2018 sex and birth weight of the child (15) were significant predictors of optimal breastfeeding practice. In Rural Southern Nepal,2019, sex of the child also was a significant predictor of optimal breastfeeding practice (18).

In Nigeria (2015), optimal breastfeeding rates were very low, indicating that most children under-6 months were given other foods or liquids in addition to breast milk, which was affected by age and gender of new-born (8). A study conducted in Debre Berhan town, Ethiopia (2016), showed that, age of infant was predictors of late initiation of breastfeeding (20).

2.2.4. Health service-related factors:

From a study done in South Asia (2018) and in Ethiopia (2017) frequent ANC visits and women gave birth via Cesarean section delivery were significant predictors of optimal breastfeeding practice (14, 15), and in a study conducted in Indonesia (2019) showed that mode of delivery was found to be a significant determinant factors of optimal breast feeding practice (10).

In Nepal(2019), data from a cluster randomized controlled trial of Maternal Alliance for Technological Research Initiative on Service Utilization and Maternal Nutrition (MATRI-SUMAN) conducted during 2015–2016, and in a study done in Ethiopia (2017) showed frequent ANC visits, PNC visit and breastfeeding counseling during ANC and PNC, were found to significantly increase the probability of initiating CF at six months (14, 18). In Nigeria (2015), optimal breastfeeding rates were affected by under 5 OPD visit (8).

3. CONCEPTUAL FRAMEWORK

Many studies in different parts of the world reviewed that breastfeeding practice in general and initiation of breastfeeding, exclusive breastfeeding, frequency of breastfeeding and complementary breast feeding in particular is affected by different factors. For the purpose of this study, examining Socio-demographic Factors, Maternal related Factors, Child Related Factors and Health service-related factors were treated as independent variables; whereas, optimal breastfeeding practice was taken as the outcome variable**.**

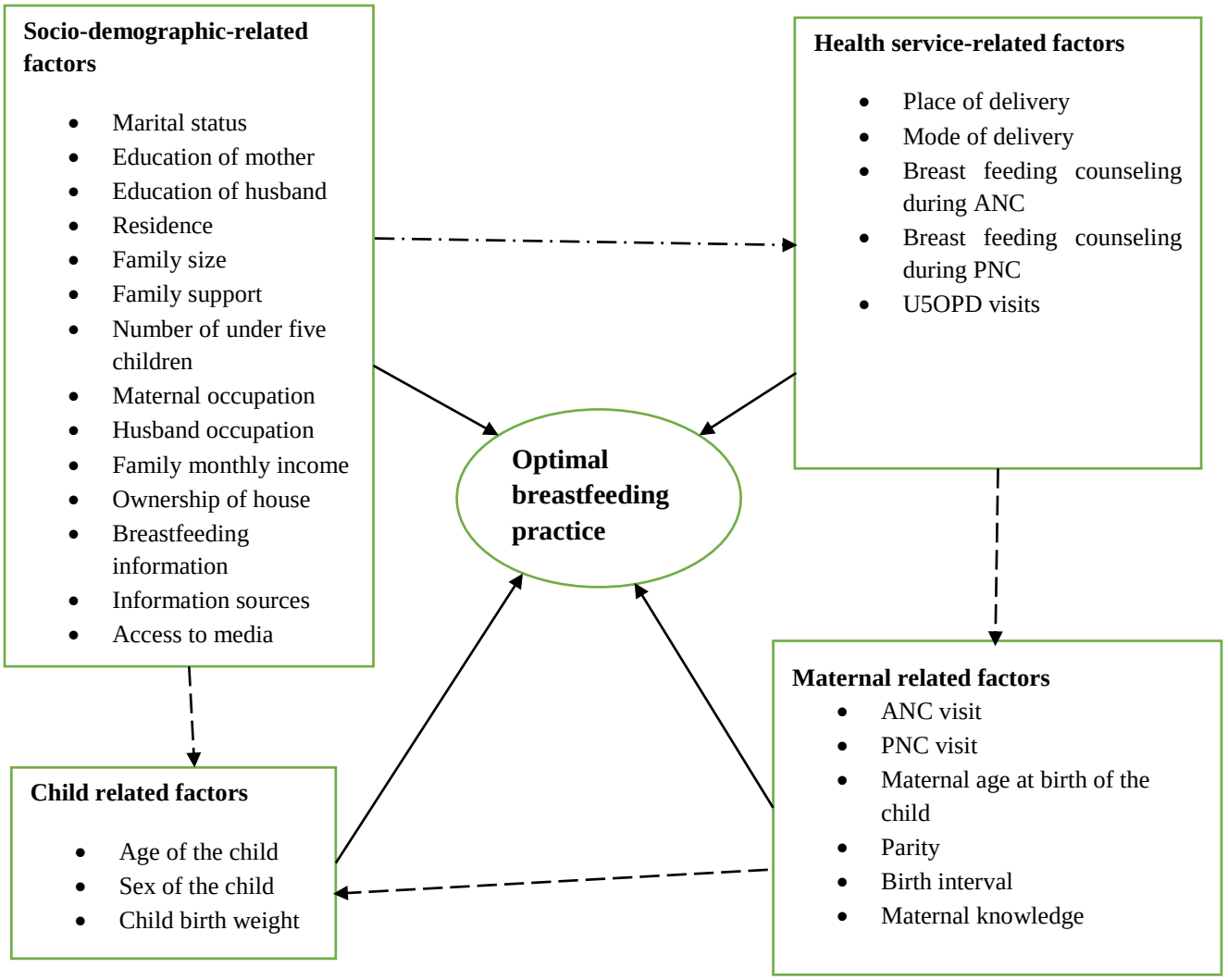

Figure 1:A conceptual framework for optimal breastfeeding practice and associated factors among mothers of children 24 - 36 months of age in Tehuledere District, North East Ethiopia, 2020, adapted from studies in different areas (3, 8, 13-15, 22).

4. OBJECTIVES

4.1 General objective

To assess optimal breastfeeding practice and associated factors among mothers of children 24-36 months of age in Tehuledere District, North-East Ethiopia, 2020

4.2 Specific objectives

To determine the prevalence of optimal breastfeeding practice among mothers of children.

To identify factors associated with optimal breastfeeding practice among mothers of children.

5. METHODS

5.1. Study design and period

A Community-based cross-sectional study was carried out from March 01-26/2020.

5.2. Study area

The study was carried out in Tehuledere District, North East Ethiopia. It is situated at a distance of 430 km away from Addis Ababa. The capital town of the district is Haik which is located at 450 km away from Bahir Dar, the capital city of Amhara national regional state (23). The district has 19 rural and 7 urban kebeles (the smallest administrative units). The total population of the district was 145,625 of which females consist 47%. The district has 1 governmental primary hospital, 5 health centers, 23 health posts, and 26 private clinics (9 medium&17 primary clinics) (24). The total number of households and children 24-36 months of age in the District were 29,000 and 6378 respectively (25).

5.3. Population

5.3.1. Source population

All mothers with children 24-36 months of age.

5.3.2. Study population

All mothers with children 24-36 months of age who were permanent residents.

5.3.3. Sampling unit

All selected households of the selected Kebeles were used as sampling unit.

5.3.4. Study unit

All selected mothers with children 24-36 months of age from selected households.

5.4. Inclusion and exclusion criteria

5.4.1. Inclusion criteria

All mothers with children 24-36 months of age resided for six months or more during data collection were included in the study.

5.4.2. Exclusion criteria

Mothers with children 24-36 months of age who were unable to respond or seriously ill and mothers who do not live with their child were excluded from the study.

5.5. Study variables

5.5.1. Dependent variable: Optimal breastfeeding practice

The outcome variable, 'optimal breastfeeding practice' which was a composite variable measured based on Infant and Young child feeding (IYCF) guideline recommendations from the six criteria: timely initiation of breastfeeding with in 1 hour of birth, giving colostrum, exclusive breastfeeding up to six months, on-demand breastfeeding (≥ 8 times within 24 hours as the child wants), Start of complementary feeding at 6^{th} month, and continued breastfeeding up to 2 years or beyond. From the questionnaire, those mothers who fulfilled all the six criteria were considered as practiced optimally breastfeeding. While, mothers who missed at least one of the six criteria were considered as practiced sub-optimal breastfeeding.

5.5.2. Independent variables

Socio-demographic factors: Marital Status, maternal education level, husband education level, family size, having partner and family support, number of under-five children, maternal occupation, occupation of husband, family monthly income, ownership of house, having BF information**,** information source and access to media

Maternal related factors: Maternal age at birth of the child, parity, birth interval, number of ANC visits, number of PNC visits and maternal knowledge

Child related factors: Age of child, sex of child, child weight at birth

Health service-related factors: Place of delivery, mode of delivery, breastfeeding counseling during ANC and breastfeeding counseling during PNC

5.6. Operational definitions

Optimal breastfeeding practice: refers to early initiated breastfeeding within one hour of birth, exclusively breastfed for 6 months, timely started safe and nutritious complementary food at 6 months, on demand breast feeding(allow the baby to breastfeed as often as he/she wants). This means feeding every 2–3 hours (8–12 times per 24 hours or more frequently if needed, especially

in the early months), giving colostrum and continued breastfeeding up to 2 years of age (2, 3, 8, 10, 11, 22, 26).

Suboptimal breastfeeding practice: when the study subjects have not practiced either of the following; initiated breastfeeding within one hour of birth, giving colostrum, breastfeeds frequently day and night (on demand), giving infant only breast milk for the first 6 months, starting complementary feeding by the age of six months and continuing breastfeeding until the child is two years of age or older(late initiation of breast feeding, not giving colostrum, not exclusive breast feeding and early cessation of breast feeding) (14, 26).

Knowledge of optimal breastfeeding: Knowledge of mothers on breastfeeding was measured by asking breastfeeding knowledge questions developed based on Infant and Young child feeding (IYCF) recommendations. For knowledge assessment, 14 questions were provided. The total knowledge score for each respondent was obtained by adding the responses (scores) of each question related to optimal breastfeeding practice.

Then, the total score was dichotomized into good knowledge (if respondent's score is ≥7.74) and poor knowledge (if respondent's score is < 7.74); taking the mean score of 7.74 as a cut-off point. Each knowledge question had three categorical responses of "yes," "no," or "not sure." A correct response was scored as "1," and a wrong and or "not sure" response scored a "0" (11, 13).

5.7. Sample size and sampling procedure

5.7.1. Sample size determination

To determine the sample size, outcome variable and various factors significantly associated with the outcome variable were considered. Both for the first and the second objectives the sample size was calculated; then, the larger sample size was used for this study.

For the first objective, the required sample was calculated by using single population proportion formula with the assumption of 95% confidence interval, 5% margin of error(d),and prevalence of optimal breastfeeding from previous study (P=43.1%) was used.

$$n=\frac{\left[\left(\frac{Z\alpha}{2}\right)2\times P\,(1-P)\right]}{d2}=\frac{(1.96)2\times 0.431(1-0.431)}{0.5)\times 0.5}=377$$

Where**;** n**=** required sample size

Z (α/2) = the desired level of confidence interval 95% (1.96 at α =0.05)

P**=**Prevalence of optimal breastfeeding practice taken from previous study in Ethiopia.

d= desired precision (5% margin of error)

For the second specific objective, the sample size was determined by considering various factors that were significantly associated with the outcome variable. Two-sided confidence interval using double population proportion formula with the assumptions of 95% CI, 5% margin of error, 80% power and exposed to unexposed ratio 1:1 using Epi Info version 7.1 stat calc, by taking the above assumptions the following results were revealed:

Variables	CI	Power	Ratio (exposed: unexposed)	% of outcome unexposed	AOR	Sample size
Ownership of house (27)	95	80	1:1	72.1	.5	316
Maternal Knowledge on BF (28)	95	80	1:1	44.3	2.1	254
Under 5 OPD visit (29)	95	80	1:1	53.2	.44	214
The maximum calculated sample size						316

As it is seen on the table above, the total sample size to identify factors that contribute to optimal breastfeeding practices was 316. Finally, by comparing the sample size of the first objective (377), and the sample size of the second objective (316), the maximum sample size (377) was used. By using finite population correction formula (N<10,000); nf= n/(1+n/N); nf=377/ (1+377/2083) =319. Multiplying 319 by design effect 1.5 (27, 30), it gives 478.5 and after adding 10% non-response rate (47.85), the final sample size was 527.

5.7.2. Sampling techniques

In this study a multi-stage sampling technique (Fig.2) was used to select the study participants. Firstly, ten kebeles (Bededo, Sulula, Haik 03, Haik 05, Hitecha, Hara, Hardibo, Gobeya, Jari, and Wahelo) were selected by using lottery method. Secondly, proportional sample size allocation was done to each kebele based on the number of mothers of 24-36 months children. Thirdly, households with children 24 - 36 months of age were identified from recorded documents of

health extension workers in the selected kebeles. Finally, study participants were drawn from the sampling unit by using systematic random sampling technique (K=2083/527=4).

The sample size was proportionally allocated to the selected kebeles using the formula: na= (Na/N) n; Where, na=sample size for kebele 'a'; Na=number of eligible children in kebele 'a'; N=the total eligible children in all selected kebeles; n=the total sample size

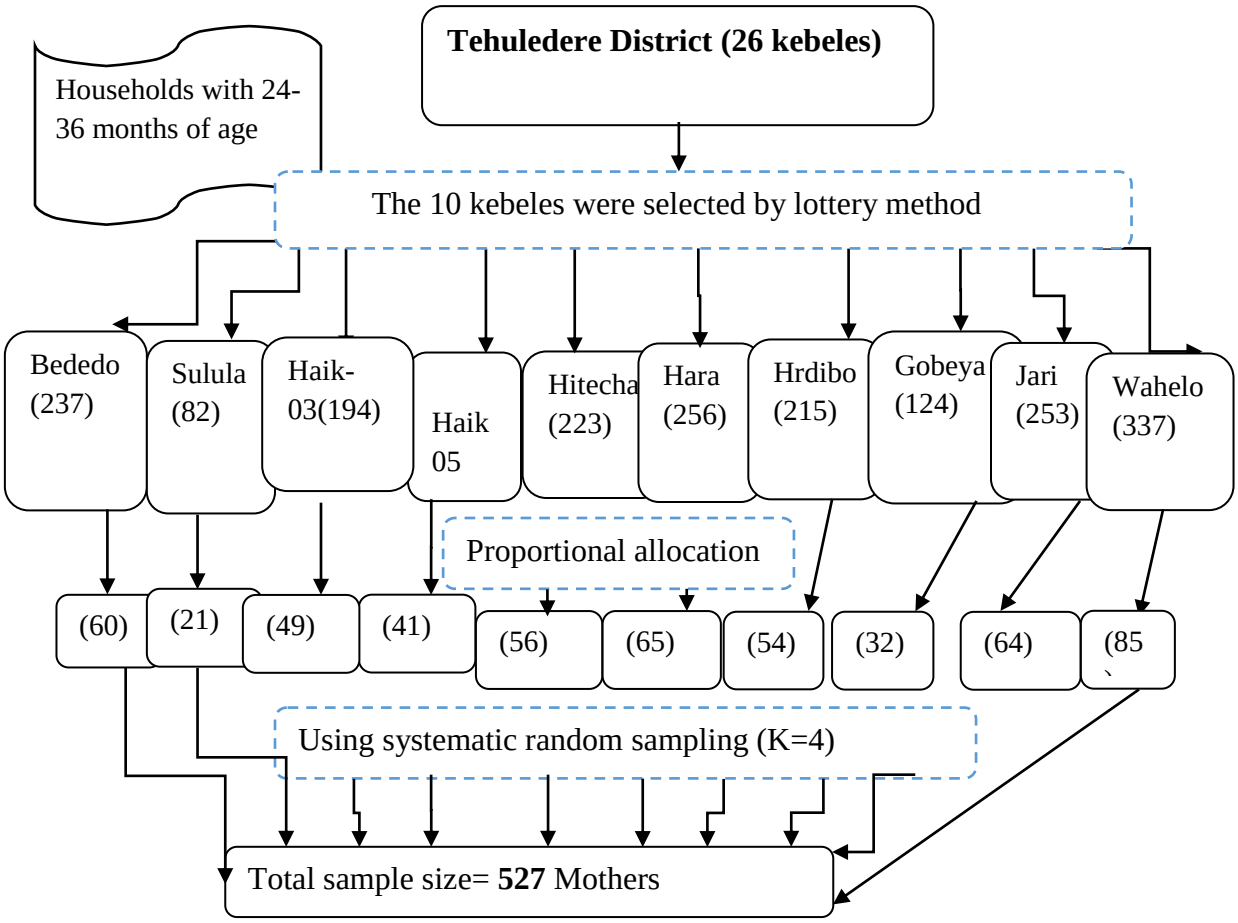

Figure 2: Sampling technique towards optimal breastfeeding practice among mothers of children 24-36 months in Tehuledere District, North East Ethiopia, 2020.

5.8. Data collection tools and procedures

An interviewer administered structured questionnaire adapted from related literatures (2, 3, 13-15, 22, 31) was used to collect data from the study participants. The questionnaire was developed in English, translated to local language (Amharic), and back translated to English via online Google translator. The questionnaire contained five parts namely: socio-demographic, maternal,

child, health service-related factors and optimal breastfeeding practice. Three health extension workers and one BSc nurse from the district health office were used as data collectors and supervisor respectively.

5.9. Data management and analysis

The data was entered using Epi Data version 3.1, then exported to SPSS version 20.0 and cleaned for analysis. Descriptive analysis was conducted to summarize the data. Binary logistic regression analysis was executed to see the association between associated factors and outcome variable. All independent variables associated with outcome variable with a p value < 0.2 were entered into multivariable logistic regression analysis. A p-value of < 0.05 was considered as statistically significant. Model fitness was checked by Hosmer-Lemeshow test of goodness of fit; then, the model fitted the data at p-value=0.283.

5.10. Data Quality assurance

The quality of the data was assured by properly designing and pre-testing the questionnaire on 5% of participants at Kosero kebele (outside the selected kebele). Proper categorization, coding and skipping patterns of questions were used. Two days training was given to three health extension workers as data collectors and one BSc nurse supervisor before the actual data collection on general objective of the study, contents of the tool, how to approach the study participants and keep their confidentiality. The data collectors were assigned outside their respective actual working areas.

Data from each household were reviewed and checked for completeness, accuracy, clarity and consistency by the principal investigator and the supervisors on a daily basis. Data cleanup and cross checking were done before analysis.

5.11. Ethical considerations

Ethical clearance letter was obtained from Institutional Ethical Review Board (IRB) of College of Medicine and Health Sciences. Support letter was obtained from Amhara National Regional Health Bureau, Amhara Public Health Institute, and the district health office. Then, the respondents were informed about the purpose of the study, and their verbal consent was obtained. The respondents' right to refuse or withdraw from participating in the interview was fully maintained and the information provided by each respondent was kept strictly confidential.

5.12. Dissemination of findings

The result of the study will be submitted to, Bahir Dar University, College of Medicine and Health Sciences, Department of Pediatrics and Child Health Nursing, Tehuledere District Health Office and to Ethiopian Public Health Institute. It will also be presented in different workshops/seminars. Finally, an effort also will be made to publish in an internationally peer reviewed journal.

6. RESULTS

This study aimed to assess the prevalence as well as factors associated with optimal breast feeding practices in the study area.

6.1. Socio-Demographic Characteristics

From the total calculated sample size (n=527), 522 mothers had participated in the study making the response rate of 99%. Above three quarter, 380(72.8%) and 316(60.5%) of the study participants were married and 403 (77.2%) were rural dwellers, 271(51.9%) of the respondents had access to media. The highest and the lowest sources of information received were 192(61.9%) from health professionals and 16 (5.2%) from mass media (**Table 1**).

Table 1: Socio-demographic characteristics of respondents regarding optimal breastfeeding practice in Tehuledere district, North East Ethiopia, March 2020

Variables(n=522)	Category	Frequency	Percent
Marital status	Married	380	72.8
	Divorced	78	14.9
	Separated	64	12.3
Educational status of mother	Unable to read and write	188	36.0
	Primary education	316	60.5
	Secondary and above	18	3.4
Educational status of father	Unable to read and write	66	12.6
	Primary education	421	80.7
	Secondary and above	35	6.7
Residence of respondent	Urban	112	21.5
	Rural	403	77.2
Family size	<5	166	31.8
	5 and above	356	68.2
Number of under five children	1	177	33.9
	2 and above	345	66.1
Family support	Yes	126	24.1
	No	396	75.9
Maternal occupation	House wife	435	83.3
	Government employed	56	10.7
	Daily laborer	31	5.9
Occupation of husband	Government employed	41	7.9
	Farmer	384	73.6
	Daily laborer	97	18.6

Family income in Ethiopian Birr	<1000.00	377	72.2
	1000.00-2500.00	67	12.8
	2501.00 and above	78	14.9
Ownership of house	Yes	446	85.4
	No	76	14.6
Had breastfeeding information	Yes	310	59.4
	No	212	40.6
Access to media	Yes	271	51.9
	No	251	48.1
Information sources of mothers	School	79	25.5
	Friends and relatives	23	7.4
	Health professional	192	61.9
	Mass media	6	5.2

6.2. Maternal, Child, and Health Service-Related Characteristics

Out of the total study subjects interviewed, three hundred forty-eight (66.7%) received ANC visits, 304(58.2%) of mothers were between 20-29 years of age. The median age of mothers was 28(±7) years. The current finding illustrated that 301(57.7%) of respondents' index children are males and 345(66.1%) of the index children had 2.5-3.99 kg of body weight. The median weight of children was 3±1kg (**Table 2**).

Table 2: Maternal, child, and health service related characteristics of respondents in Tehuledere district, North East Ethiopia, 2020

Variables (n=522)	Category	Frequency	Percent
ANC visit	Yes	348	66.7
	No	174	33.3
Number of ANC visit(n=348)	1-3times	235	67.5
	4times&above	113	32.5
PNC visit	Yes	353	67.6
	No	169	32.4
Number of PNC visits (n=353)	1-2days	141	39.9
	>2 days	212	60.1
Maternal age(years) at birth of index child	15-19	63	12.1
	20-29	304	58.2
	30 and above	155	29.7
Parity	Primiparous	177	33.9

	Multiparous	345	66.1
Birth interval(n=345)	1 year	34	9.9
	2-3 years	241	69.9
	4years& above	70	20.3
Maternal knowledge	Poor	247	47.3
	Good	275	52.7
Age of the child (in month) at initiation of complementary feeding	Before-6th months	123	23.6
	At 6th month	246	47.1
	7-23 months	153	29.3
Sex of the child	Male	301	57.7
	Female	221	42.3
Child birth weight	≥4.0 kg	143	27.4
	2.5-3.99 kg	345	66.1
	<2.5 kg	34	6.5
Place of delivery	Home	77	14.8
	Health Center	312	59.8
	Public hospitals& private health facility	133	25.5
Mode of delivery	Cesarean delivery	128	24.5
	Normal vaginal delivery	394	75.5
Breastfeeding counseling during ANC	Yes	309	59.2
	No	213	40.8
Breastfeeding counseling during PNC	Yes	298	57.1
	No	224	42.9
Under-five OPD visits	Yes	266	51.0
	No	256	49.0

6.3 Breastfeeding Practice of Respondents

The finding indicated that, 242(46.4%) of mothers initiated breastfeeding within one hour after delivery, 283(54.2%) gave colostrum, 265(50.8%) exclusively breastfed their children up to six

months of age, 248(47.5%) breastfed ≥8 times per 24 hours, 246 (47.1%) timely started complementary feeding, and 239(45.8%) of mothers continued breast feeding their children up to 2 years (**Table 3**).

Table 3: Breastfeeding practice of respondents in Tehuledere District, North East Ethiopia, 2020

Variables (n=522)	Category	Frequency (%)
Time of breastfeeding initiation	within 1 hour	242(46.4)
	after 1 hour	280(53.6)
Colostrum given	Yes	283(54.2)
	No	239(45.80
Type of prelacteal feeding(n=124)	Water	61(49.2)
	Butter	33(26.6)
	cow milk	30(24.2)
Exclusively breast feed	Yes	265(50.8)
	No	257(49.2)
Breastfeeding frequency	<8 times	244(46.7)
	≥8 times	248(47.5)
	Do not remember	30(5.7)
Bottle-feeding	Yes	102(19.5)
	No	420(80.5)
Predominant breastfeeding(n=102)	Yes	43(42.2)
	No	59(57.8)
Timely started complementary feeding	Yes	246(47.1)
	No	276(52.9)
Ingredients of complementary feeding started at 6th month(n=246)	Cow's milk	28(11.4)
	Greenleafy vegetables	1(.4)
	Soup	194(78.9)
	Formula milk	7(2.8)
	Porridge	16(6.5)
Food groups used for feeding per day at 6 months and above	Grains and legumes only	419(80.3)
	Grains,legumes dairy products, egg	74(14.2)
	Do not remember	29(5.6)
Continued breast feeding up to 2 years(n=522)	Yes	239(45.8)
	No	283(54.2)
Time of cessation of breastfeeding (in completed months) (n=283)	Before 6 months	4(1.4)
	6-11 months	6(2.1)
	12-23 months	273(96.5)
Reason to stop breast feeding(n=283)	No breast milk	82(29.0)
	Mother sick	47(16.6)
	Child Sick	83(29.3)
	Breast disease	71(25.1)

6.4 Prevalence of optimal breastfeeding practice

As shown in the figure below, from 522 mothers interviewed, the prevalence of optimal breastfeeding practice of respondents was 231(44.3%).While, 291(55.7%) of the participants breastfed sub-optimally.

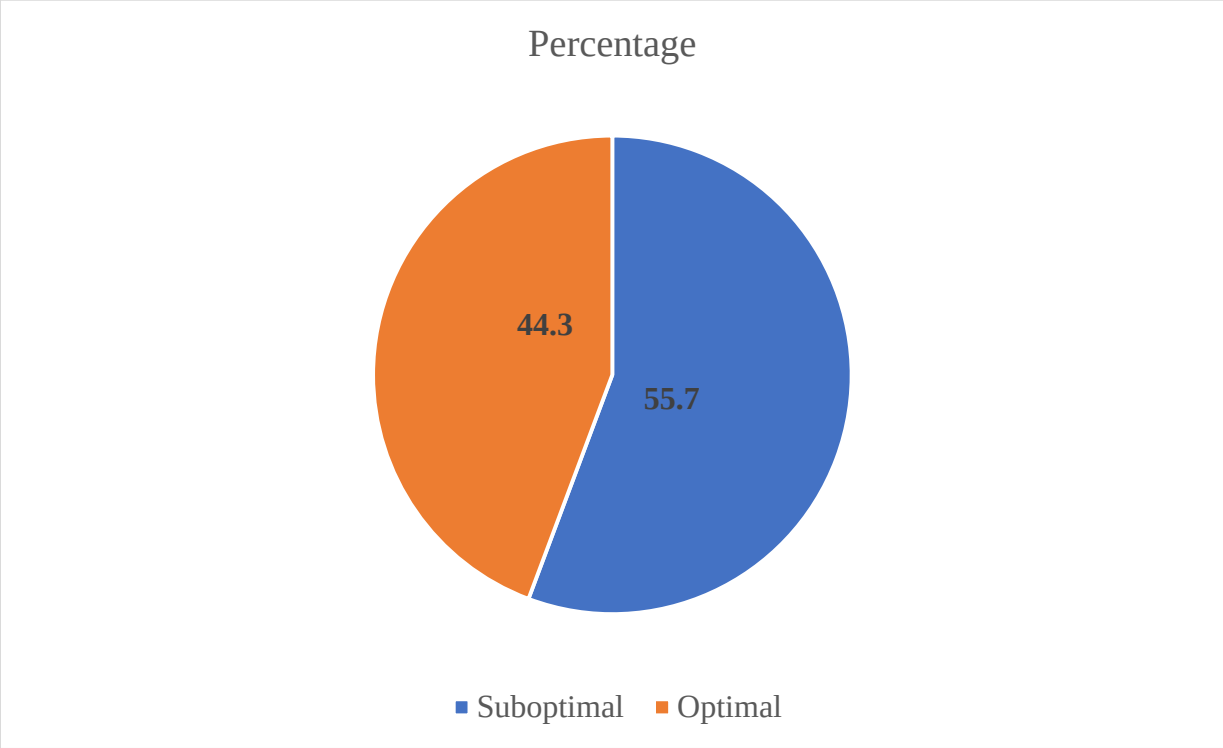

Figure 3: Breastfeeding practice among mothers of children aged 24 up to 36 months in Tehuledere District, North East Ethiopia, 2020

6.5. Factors associated with optimal Breastfeeding Practice

This study had tried to assess factors associated with optimal breastfeeding practice. Access to media, child's sex, child birth weight and number of ANC visits were factors associated with optimal breastfeeding practice.

The odds of optimal breast-feeding practice among respondents who had access to media (AOR=2.55[95%CI=1.20, 5.40]) were 3 times higher than respondents who had no access to media.

Mothers who had male children (AOR=2.697[1.49, 4.87] were about 3 times, and children's birth weight <2.5KG (AOR=4.86[1.24, 9.08]) were about 5 times positively associated with optimal breastfeeding practice than mother who had female children and children's weight 2.5-3.99 KG.

On the other hand, mothers who have history of ANC visits 1-3 times (AOR=.282[.15, .52]) were approximately 72% less likely to practice optimal breastfeeding than mothers with ANC visits >=4 times (**Table 4**).

Table 4: Socio-demographic, Maternal, Child, and Health service-related factors versus optimal breastfeeding practice among mothers of children aged 24 up to 36 months in Tehuledere District, North East Ethiopia, 2020

		Breastfeeding practice			
Variables (n=522)	Category	Optimal N (%)	Sub-optimal N (%)	COR [95% C.I]	AOR [95% C.I]
Marital status	Married	169(34.4)	211(40.4)	1	1
	Divorced	54(10.3)	24(4.6)	2.81[1.67,4.73]***	1.76[.65,4.72]
	Separated	8(1.5)	56(10.7)	.18[.083,.38]***	.39[.10,1.45]
Educational status of father	Unable to read & write	50(9.6)	16(3.1)	1	1
	Primary education	171(32.8)	250(47.9)	7.81[3.10,19.69]***	.46[.15,1.43]
	Secondary &above	10 (1.9)	25(4.8)	1.71[.80,3.65]	.54[.09, 3.35]
Residence	Urban	39(7.5)	80(15.3)	.54[.35,.82]**	.30[.05,1.75]
	Rural	192 (36.8)	211 (40.4)	1	1

Family size	<5	61 (11.7)	105 (20.1)	.64[.436,.928]*	.71[.29,1.73]
	5 and above	170 (32.6)	186 (35.6)	1	1
Family support	Yes	75 (14.4)	51 (9.8)	2.26[1.50,3.41]***	2.65[.98,7.18]
	No	156 (29.9)	24 (46.0)	1	1
Maternal occupation	House wife	201 (38.5)	234 (44.8)	3.58[1.44,8.90]**	.97[.24,3.96]
	Government employed	24 (4.6)	32 (6.1)	3.13[1.11,8.81]	.35[.07,1.72]
	Daily laborer	6 (1.1)	25 (4.8)	1	1
Occupation of husband	Government employed	23 (4.4)	18(3.4)	1	1
	Farmer	178 (34.1)	206 (39.5)	.68[.35,1.29]	.45[.14,1.48]
	Daily laborer	30 (5.7)	67 (12.8)	.35[.17,.74]**	.20[.04,1.11]
Family income in Ethiopian Birrr	<1000.00	176 (33.7)	201 (38.5)	1	1
	1000.00-2500.00	30 (5.7)	37 (7.1)	.93[.55,1.56]	1.02[.33,3.10]
	2501.00 & above	25 (4.8)	53 (10.2)	.54[.32,.90]*	1.93[.42,8.89]
Ownership of house	Yes	211 (40.4)	235 (45.0)	2.51[1.46,4.33]*	2.19[.75,6.37]
	No	20 (3.8)	56 (10.7)	1	1
Having BF information	Yes	160 (30.7)	150 (28.7)	2.12[1.47,3.04]***	.58[.20,1.67]
	No	71 (13.6)	141(27.0)	1	1
Access to media	Yes	143 (27.4)	128 (24.5)	2.07[1.45,2.94]***	2.55[1.20,5.40]*
	No	88 (16.9)	163(31.2)	1	1
Maternal age(years)	15-19	33 (6.3)	30 (5.7)	1.74[.97,3.14]	2.27[.55,9.27]
	20-29	138 (26.4)	166 (31.8)	1.32[.89,1.95]	1.55[.77,3.10]
	30 and above	60 (11.5)	95 (18.2)	1	1
Maternal knowledge	Poor knowledge	118 (22.6)	129 (24.7)	1	1
	Good knowledge	113 (21.6)	162 (31.1)	.76[.54,1.08]	.99[.56,1.75]
Child sex	Male	163 (31.2)	138 (26.4)	2.66[1.85,3.83]***	2.70[1.49,4.87]**
	Female	68 (13.0)	153 (29.3)	1	1
Child birth weight	≥4.0 kg	50 (9.6)	93 (17.8)	1	1
	2.5-3.99 kg	163 (31.2)	182 (34.9)	1.67[1.11,2.50]*	.97[.50,1.93]
	<2.5 kg	18 (3.4)	16 (3.1)	2.09[.98,4.46]	4.86[1.24,19.08]*
Number of ANC visit	1-3times	81 (23.3)	154 (44.3)	.27[.17,.43]***	.28[.154,.52]***
	4times	75 (21.6)	38 (10.9)	1	1

	& above				
PNC visit	Yes	170 (32.6)	183 (35.1)	1.65[1.13,2.40]*	1.92[.83,4.43]
	No	61 (11.7)	108 (20.7)	1	1
U5 OPD visits	Yes	140 (26.8)	126 (24.1)	2.02[1.42,2.86]***	1.01[.53,1.92]
	No	91 (17.4)	165 (31.6)	1	1
Place of delivery	Home	45 (8.6)	32 (6.1)	1	1
	Health Center	127 (24.3)	185 (35.4)	.49[.29,.81]*	.66[.31,1.38]
	Public hospitals & private-health facility	59 (11.3)	74 (14.2)	.57[.32,1.00]	.54[.20,1.48]
Breastfeeding counseling during ANC	Yes	163 (31.2)	146 (28.0)	2.38[1.65,3.43]***	1.13[.42,3.08]
	No	68 (13.0)	145 (27.8)	1	1
Breastfeeding counseling during PNC	Yes	158 (30.3)	140 (26.8)	2.33[1.63,3.35]***	1.95[.71,5.35]
	No	73 (14.0)	151 (28.9)	1	1

*P-Value < 0.05, P-Value < 0.01, P-Value < 0.001; COR- crude odds ratio; AOR- Adjusted odds ratio; CI= confidence interval

7. DISCUSSION

This study revealed that optimal breastfeeding practice was 44.3% (95% CI=40.1, 48.1) which is consistent with the study done in rural communities of Hula District in Ethiopia, 2017 (n= 634 mothers) (43.1%) (14), and the study conducted in Indonesia (47.1%) (10). But, it is higher than a study conducted in Arba Minch Zuria, Ethiopia (35.6%) (13). This higher rate of breastfeeding could be due to the difference in sample size and study period.

In this study, the multivariable logistic regression analysis revealed that respondents who had access to media were nearly 3 times higher to experience optimal breastfeeding than those respondents who had no access to media. This result is different from the study conducted in Hula District, Ethiopia,2017 (n=634) in those mothers who had no access to media were 1.21 times more likely to breastfed optimally (14), and an another study done in Arba Minch Zuria, Ethiopia (n=383 mothers in 2013). This difference is due to the difference in sample size, study period and sampling technique, and currently health education and advertisements are given by media about child feeding practices (17).

The odds of optimal breastfeeding practice of mothers who had male children were nearly 3 times higher than mothers who had female children. This result is agreed with the studies in Nepal, mothers having male children were 1.7 times more likely to breastfed than mothers who have female children (18), and in South Asia in which female children were 20% less likely breastfed than male infants (15).

In those respondents, the odds of optimal breastfeeding practice of mothers having < 2.5 kg birth weight children were nearly 5 times higher than those ≥4.0 kg birth weight. This finding disagreed with the study in South Asia, < 2.5 kg birth size was 44% less likely to make optimal breastfeeding (15).This disagreement is due to health extension workers deployed in rural areas are responsible for wide practice of breastfeeding in the study area in Ethiopia (17).

In this study, the odds of optimal breastfeeding practice of mothers who had 1-3 times ANC visits were 71.8% lower than those mothers who had 4 times and above ANC visits. This result is congruent with the finding in South Asia, those having four or more ANC visits were 1.63 times more likely to breastfed optimally than those who had 1-3 times ANC visits (15) , and in a rural part of Ethiopia in which mothers with 1-3 times ANC visits were 2.4 times more likely to

breastfed their children sub-optimally than those mothers who had 4 times and above ANC visits (14).

But, this result is incongruent with a study in Nigeria in 2015 (n=10,225) in which mothers who have frequent antenatal visits 4 times and above were 22% less likely breastfed their babies compared to mothers who made 1-3 times ANC visits (8). This incongruence is due to the reason that currently in Ethiopia intensive heath education is provided by health extension workers about breastfeeding at the time of antenatal care visit for the mothers according to the focused antenatal care guideline, and due to the difference in sample size and study design (17).

8. LIMITATIONS OF THE STUDY

It was a cross-sectional study; the cause effect relationship of different variables with optimal breastfeeding could not be assessed. The mothers were asked about their previous practices, there might be a potential recall bias.

Maternal skills of breastfeeding practice (positioning and attachment) were not measured. Socioeconomic status was assessed simply by asking monthly income which would not be good to compute wealth index. In order to generate more information from the study participants, it would have been good if qualitative data collection approaches were considered besides the quantitative one.

9. CONCLUSIONS

This study showed that the prevalence of optimal breastfeeding practice was low. Access to media, sex of the child, weight of the child and number of antenatal care visits were significantly associated with optimal breastfeeding practice.

10. RECOMMENDATIONS

Based on the study findings the following recommendations are forwarded: Enhancing the access to information on optimal breast feeding, minimizing sex difference in child care and strengthening focused ANC by health professionals, district health offices and partners is important in order to improve optimal breastfeeding practice. In addition to this, further studies that mainly address all areas of associated factors that may significantly affect optimal breastfeeding practice are needed in the study area and in the region at large.

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12. APPENDICES

Annex 1: Information Sheet, Participant Consent in English Version

a. Information Sheet

Hello! My name is _____. I am a data collector in a research on optimal breastfeeding practices and associated factors among mothers of children 24 - 36 months of age in Tehuledere District, Amhara region, Ethiopia. I would like to ask you about the health of your youngest child and the questions which are not difficult to answer. This information will help in averting child hood problems of the town. I should keep your confidentiality and your name will not be written in this form and will never be used in connection with any of information you tell me. You don't have to answer any of the questions that you don't want to answer. However, your honest answer will help me to identify the gaps during breast feeding and for providing appropriate recommendations based on the findings. I would appreciate your help in responding the survey questions, and the survey usually takes 30 minutes to complete.

b. Informed consent

I, the participant, heard the information from the consent sheet and understood what is required from me and what will happen if I take part in the study. I understand that all the information regarding me will not be transferred to the third party. I also understand that I can with draw from the study at any time without giving reason. Do you have any questions?

If you have any additional concerns or questions about this research, please contact the primary investigator: Osman Seid, mobile number 0920207838 and email address osmanseid968@gmail.com

Are you willing to participate in the study? (Circle their response)
Yes =>Continue; No=> Stop collecting consent and thank the client.
Name and signature of the interviewer_____; Date of interview _____

Result of the interview: 1. completed 2. Partially completed 3. Refused

Annex 2: English Questionnaire

	Question	Responses	Remark
	Kebele code	[___|___]	
	Data collector code	[___|___]	
	Client code	[___|___	

Section I. Socio-demographic Factors affecting optimal breastfeeding practices

101	What was your marital status when you have born the child?	1.Married 2.Divorced 3. Separated
102	What was your level of education when you have born the child?	1. Unable to read and write 2.Primary 3.Secondary& above
103	What was your husband's level of education when you have born the child?	1. Unable to read and write 2.Primary 3.Secondary and above
104	Where was your residence when you have born the child?	1. Urban 2. Rural
105	What was your family size when you have born the child?	_____
106	How many under-five children did you have?	1. One 2.Two & above
107	Did the father and other family members support you to breastfeed the child?	1. Yes 2. No
108	What was your occupation when you have born the child?	1.House-wife 2.Government employed 3.Daily laborer

109	What was your husband's occupation when you have born the child?	1.Government employed 2.Farmer 3. Daily laborer
110	What was your total family income per month when you have born the child?	_____
111	Were you the owner of the house when you have born the child?	1. Yes 2. No
112	Have you heard about breast feeding information before birth of the child?	1. Yes 2. No
113	If yes for question No.112, from where did you get the information?	1. School 2. Friends & relatives 3. Health professional 4. Mass media
114	Did you have access to media before you have given birth the child?	1. Yes 2. No

Section II. Maternal Related factors affecting optimal breastfeeding practices

201	What was your age when you have born the child?	_____ years
202	How many U5children have you given birth?	_____
203	If you have more than one child, what is the interval between the last and his elder child?	_____years
204	Have you ever visited antenatal care clinic before you have born the child?	1. Yes 2. No
205	If yes, how many times you have attended antenatal care before you have born the child?	_____times
206	Do you have post-natal care visit after you have born the child?	1. Yes 2. No
207	If yes, how many times you have attended?	_____times

Section III. Child Related Factors affecting optimal breastfeeding practice

301.	What was the child's age when he/she started complementary feeding?	_____
302	What is the child's sex?	1. Male 2. Female
303	What was the child's weight at birth?	_____KG

Section IV. Health Service-Related Factors affecting optimal breastfeeding practice

401	Have you visited under 5 OPD for the child?	1. Yes 2. No
402	Where did you deliver the child?	1. Home 2.Health center 3.Public hospitals and private health facility
403	What was the mode of delivery of the child?	1. Cesarean 2. Normal vaginal
404	Have you received any breastfeeding counseling during ANC of the child?	1. Yes 2. No
405	Have you received any breastfeeding counseling during PNC of the child?	1. Yes 2. No

V: Breastfeeding practices in Tehuledere District, North East Ethiopia, 2020

501	Has your child ever breast fed?	1. Yes 2. No
502	If yes, how long after birth did you first put the child to the breast?	1.Within one hour 2. After one hour
503	If no in question no. 501, what is your reason for never breast feed?	1.No breast milk 2. Mother sick 3. Child Sick 4. Breast disease 5.Other(Specify) ____
504	Within the first three days after delivery, before your milk began flowing regularly, did you feed the child the fluid (colostrum) that came from your breasts?	1. Yes 2. No

505	Was the child given other fluids immediately after birth?	1. Yes 2. No
506	If yes in question no. 505, what was given?	1)Water 2)butter 3) cow's milk
507	Did the child exclusively breast feed since birth?	1. Yes 2. No
508	Has the child bottle fed?	1. Yes 2. No
509	Have the child predominantly breast fed?	1. Yes 2. No
510	How frequent did you breastfeed your last child per day?	1.___times 2. Don't know
511	What ingredients did you gave at first start of complementary feeding?	Specify _____
512	At 6 months and above, what was the food groups used for feeding daily?	Specify _____
513	Did the child breastfed for the last 2 years?	1. Yes 2. No
514	If your answer is "No" in question No. 514, at what age the child stopped breast feeding?	_____ months
515	What was the reason to stop breast feeding?	Specify _____
516	How frequent did you breastfeed your last child during the day time? (From sunrise to sunset?	1._____times 2. Don't know
517	How frequent did you breastfeed your last child during the night time? (From sun set to sunrise?	1._____times 2. Don't know

Maternal knowledge score Criteria of optimal breastfeeding practice

Parameters	No	Yes
1. It is forbidden to give a one-month-old baby cow's milk by assuming he/she can become stronger.	0	1
2. Introducing other foods before six months of infancy will impair the baby health.	0	1
3. Breastfeeding should continue even after 1 year of childhood.	0	1
4. If a mother develops sore, reddened, and swollen breast she should continue breastfeeding.	0	1
5. Women who have breastfed have lower risk of breast cancer.	0	1
6. If a mother feels she is not producing enough breast milk she should supplement with formula for a child after 6 months.	0	1
7. Proper latching involves getting the infant to latch onto the nipple and as much of the areola as possible.	0	1
8. Infants who are breastfed are at reduced risk of developing diarrhea.	0	1
9.Human colostrum is sticky, thick, and yellowish in color.	0	1
10.When a mother's breasts become engorged, she should not discontinue breastfeeding for a couple days.	0	1
11. Gently stroking an infant's cheek can elicit an infant's rooting reflex to turn towards the mother's breast.	0	1
12. It is advisable to introduce foods such as green leafy vegetables, soup, porridge, etc. at 6 months to the infant.	0	1
13. To avoid over feeding it is not important to limit feeding at each breast to 5 minutes.	0	1
14. Exclusively breastfed infants feed anytime from 8 to 12 times a day.	0	1
Total score	0	14

Total score dichotomized into good knowledge and poor knowledge taking the mean score of 7.74 as a cutoff point (scoring a mean score or above considered as good knowledge (7.74-14) while scoring below a mean as poor knowledge (0–7.74) (11, 13).

Annex 3: Amharic Questionnaire (አማርኛ ቃለ-መጠይቅ)

ባህርዳር ዩኒቨርሲቲ ሕክምናና ጤና ሳይንስ ኮሌጅ

የህጻናት ጤና ነርሲንግ ትምህርት ክፍል

በአማራ ብሄራዊ ክልላዊ መንግስት በደቡብ ወሎ ዞን ውስጥ በተሁለደሬ ወረዳ ከ24-36 ወራት ልጆች ያላቸዉ እናቶች ስለ ልጆቻቸዉ ጡት ኣጠባብ ያላቸዉን ግንዛቤ እና በጡት አጠባብ ሊያጋጥሙ የሚችሉ ችግሮችን ለማዎቅ የተዘጋጀ መጠይቅ:-

ጤና ይስጥልኝ፣እኔ_____እባላለሁ፡፡ እዚህ የመጣሁት በባህርዳር ዩኒቨርሲቲ አማካኝነት በሚካሄደዉ ጥናት ላይ ለመሳተፍ ነዉ፡፡ የጥናቱ ዋና አላማ የእናቶችን ስለ ልጆቻቸዉ ጡት ኣጠባብ ግንዛቤ እና በጡት ኣጠባብ ወቅት ሊያጋጥሙ የሚችሉ ችግሮችን ለማዎቅ ነዉ፡፡ይህን ጥናት ለማስኬድ የሚያስፈልጉ መረጃዎችን ለማገኘት ቀላልና ግልጽ ጥያቄዎችን ልጠይቅዎት እፈልጋለሁ፡፡ እርስዎ የሚሰጡን መረጃ ለህግ አዉጭዎች እንዲሁም መንግስታዊና መንግሰታዊ ላልሆኑ ደርጅቶች ስራቸዉ የህጻናት ችገሮችን ለመፍታት ላደረጉ ጠቀሜታዉ የጎላ ነዉ፡፡ በመጠይቅ ወቅት ስም መናገር አይጠበቅዎትም፣ በሚሰጡት መረጃም ምንም አይነት ችግር እንደማይደርስብዎት እና ምስጢር እንደምጠብቅልዎት ላረጋግጥልዎት እወዳለሁ፡፡ ሁሉንም መጠይቆች መመለስ አይጠበቅብዎትም ነገር ግን የእርስዎ መሳተፍ ለስራችን አስፈላጊ ስለሁነ እንዲሁም ያሉትን የአምጋገብ ችግሮች ለማዎቅ እና አስፈላጊዉን ጠቃሚ ሀሳብ ለመስጠት ስለሚጠቅሙን የእርስዎን መሳተፍ በጥብቅ እፈልገዋለሁ፡፡ ስለዚህ እርስዎ ለዚህ ተግባር ለሚያደርት አስተዋፆ የላቀ ምስጋናየን አቀርባለሁ ለዘህ ቃለ-መጠይቅ ለ30 ደቂቃ ከእኔ ጋር እንዲቆዩ በኣክብሮት አጠይቅዎታለሁ፡፡ ያልገባዎት ጥያቄ ካለ መጠየቅ ይችላሉ፡፡

የመጠይቅ ተሳታፊዎች የስምምነት ማረጋገጫ ቅጽ

ከላይ በተሰጠኝ መረጃ መሰረት ስለጥናቱ አላማ እና ምንነት ተገንዝቤያለሁ፡፡ እንደተገነዘብሁት በመጠይቁ ያልገባኝን የመጠየቅ፤ ያልፈለግሁትን ያለመመለስና በዚህ መሳተፍ ምንም ጉዳት እንደማያመጣ እንዲሁም በማንኛዉም ጊዜ የማቋረጥ መብቴ የተጠበቀ መሆኑን ተረድቻለሁ፡፡ በመሆኑም በመጠይቁ መሰረት በራሴ ፈቃድ የተሳተፍኩ መሆኑን ለመግለፅ እዎዳለሁ፡፡ እንድንቀጥል ፈቃድኛነዎት?_____

፤መልሱ አዎ ከሆነ ወደሚቀጥለው፤አልችልም ከሆነ አመስግነሽ መጠይቁን አቋርጪ፡፡

- የተጠያቂዋን እናት ፍቃደኝነት የሚያረጋግጥ የመረጃ ሰብሳቢ ፊርማ_____

መጠይቁ የተካሄደበት ቀን_____ወር_____ዓ. ም_____

ጥያቄ ካለዎት አሁን ወይንም ሌላ ጊዜ ሊጠይቁ ይችላሉ፡፡ ሌላ ጊዜ ለመጠየቅ ቢፈልጉ ከዚህ በታች የተጠቀሱትን ግለሰብች ማነጋገር ይችላሉ፡፡

የዋናው ተመራማሪ ስም ኡስማን ሰይድ ስልክ ቁጥር: 0920207838

የጠያቂዉ ስም_____ፊርማ___ ቀን_____/_____/_____

*ያረጋገጠዉ ተቆጣጣሪ ስም*_____*ፊርማ*_____*ቀን*_____/_____/_____

-የመጠይቁ ዉጤት፡-1. *ተሟልቷል* 2. *አልተሟላም* 3.*ባለመስማማት አልተካሄደም*

ተ.ቁ	ጥያቄ	መልስ	መግለጫ
	የቀበሌ ኮድ	[___|___]	
	መረጃ ሰብሳቢ ኮድ	[___|___]	
	መረጃ ሰጪ ኮድ	[___|___]	

ክፍል-አንድ፡የእናቶች የማህበራዊና ስነህዝብ ሁኔታ መረጃ

101	የጋብቻ ሁኔታ እንዴት ነበር?	1.ያገባች 2.አግብታየፈታች 3.ተራርቀዉ የሚኑሩ
102	የእናትየዋ የትምህርት ሁኔታ እንዴት ነበር?	1.ያልተማረች 2.የመጀመሪያ ደረጃ 3.ከሁለተኛ ደረጃ በላይ
103	የባል የትምህርት ሁኔታ እንዴት ነበር?	1.የልተማረ 2.የመጀመሪያደረጃ 3.ከሁለተኛ ደረጃ በላይ
104	የነዋሪነትዎ ሁኔታ ምንድን ነበር?	1. ከተማ 2. ገጠር
105	የቤተሰብዎ ብዛት ስንት ነበር?	_____
106	ከ5 ዓመት በታች በህይወት ያሉ ስንት ልጆች ነበርዎት?	_____
107	ሌሎች የቤተሰቡ አባላት ጡት እንዲያጠቡ እርዳታ ያደርጉልዎት ነበር?	1.አዎ 2. የለም
108	ህፃኑ ሲወለድ የስራሽ ሁኔታ እንዴት ነበር?	1.የቤትእመቤት 2.የመንግስትተቀጣሪ 3.የቀን ሰራተኛ
109	ህፃኑ ሲወለድ የባልሽ የስራ ሁኔታ እንዴት ነበር?	1.የመንግስትተቀጣሪ 2.ገበረ 3. የቀን ሰራተኛ
110	ህፃኑ ሲወለድ አማካይ የቤተሰብዎ ወርሀዊ ገቢ ስንት ነበር?	_____
111	ህፃኑ ሲወለድ የቤት ባለቤት ነበሩ?	1.አዎ 2. የለም
112	ልጅወትን እንዴት ጡት ማጥባትና መመገብ እንዳለብወት ሰምተው ያውቃሉ?	1.አዎ 2. የለም
113	ለተራቁጥር 112 መልስዎ አዎ፣ ከሆነ የአመጋገብ ትምህርቱን ከየት ሰሙት?	1.ከትምህርትቤት 2.ከዘመድ/ከጓደኛ 3.ከጤናባለሙዎች 4.ከመገናኛ ድርጅቶች(ሬዴዮ፣ቴሌቪ ዥን፣ጋዜጣ፣ፖስተር)

114 የዜና ምንጭ(ራዲዮ ወይም ቴሌቪዥን) አለዎት? 1.አዎ 2. የለም

ክፍል-ሁለት፡ የእናቶች ስነ-ተዋልዶ ሁኔታ የተመለከቱ ጥያቄዎች

201 ህፃኑ ሲወለድ እድሜዎ ስንት ነበር? _____

202 ከዚህ በፊት ወልደሽ ታውቂያለሽ? _____

203 በህፃኑና ከሱ በፊት በተወለደዉ ህጻን መካከል ምን ያክል የእድሜ ልዩነት አለ? _____

204 የቅድመ ወሊድ ክትትል አድርገው ነበር? 1.አዎ 2. የለም

205 የተ.ቁ 204.መልሱ አዎ፣ ከሆነ ህፃኑ ከመወለድ በፍት የቅድመ-ወሊድ ክትትል ስንት ጊዜ አድርገዋል? _____

206 የድህረ-ወሊድ ክትትል አድርገው ነበር? 1.አዎ 2. የለም

207 የተ.ቁ 206.መልሱ አዎ፣ ከሆነ የድህረ ወሊድ ክትትል ስንት ጊዜ አድርገዋል? _____

ክፍል-ሶስት: የህጻናት ሁኔታ የተመለከቱ ጥያቄዎች

301 የህፃኑ እድሜ ተጨማሪ ምግብ ሲጀምር ስንት ነበር? _____ወር

302 የልጅሽ ጸታ ምንድን ነው? 1. ሴት 2.ወንድ

303 የህፃኑ ክብደት ሲወለድ ስንት ነበር? _____ኪሎ ግራም

ክፍል-አራት: የጤና አገልግሎት ሁኔታ የተመለከቱ ጥያቄዎች

401 ከዚህ በፉት ከ5 አመት በታች የሆኑ ህፃናት ክትትል የሚያደርጉበት ክፍል መጥተው ያውቃሉ? 1.አዎ 2. የለም

402 ህፃኑ የተወለደው የት ነበር? 1.እቤት
2.ጤናጣቢያ
3.የመንግስት ሆስቢታልናየግል ጤና ድርጅት

403 ህጻኑን የወለዱበት መንገድ ምንድን ነበር? 1.በቀዶጥገና
2.በማኅፀን

404 በእርግዝና ክትትልዎ ወቅት ጡት ማጥባት ምክር ተሰጥዎት ነበር? 1.አዎ 2. የለም

405 በድህረ-ወሉድ ክትትልዎ ወቅት ጡት ማጥባት ምክር ተሰጥዎት ነበር ክትትልዎ? 1.አዎ 2. የለም

ክፍል አምስት፡ የእናት ጡት ወተት የመስጠት ልምድ

501 ልጅዎትን ጡት አጥብተውት ያውቃለ? 1.አዎ 2. የለም

502 መሌሱ አዎ፣ ከሆነ ህፃኑ እንደተወለደ ጡት መጥባት የጀመረው መቼ ነው? 1.በተወለደበ1ሰዓት ውስጥ
2.ከተወለደከ1 ሰዓት በሁዋላ

503 የተራ ቁጥር 501 መሌሱ የለም፣ ከሆነ ልጅዎን የጡት ወተት ያላጠቡበት ምክንያት ምንድን ነው? 1.የጡትወተትባለመኖሩ

		2.በእናትየውህመም ምክንያት 3.በህፃኑህመምምክንያት 4.የጡትህመም 5.ሌላ ካለ ይግለፁ__
504	ህጻኑ ከጡትዎ የወጣውን የመጀመሪያ ፈሳሽ ወተት(እንገር) እንዲጠባ አድርገውታል?	1.አዎ 2. የለም
505	ህፃኑ እንደተወለደ የመጀመሪያው የጡት ወተት(እንገር) ከጠባ በኋላ ለልጅዎ የሚበላ/የሚጠጣ ሰጥተውታል ?	1.አዎ 2. የለም
506	የተራ ቁጥር 505 መሌሱ አዎ፣ ከሆነ ምን ተጨማሪ ምግብ ወይም ፈሳሽ ሰጥተውታል?	1.ውሃ 2.ቅቤ 3.የከብትወተት 4.ሌላ ካለ ይግለፁ__
507	ልጅዎ ከተወለደ ጊዜ ጀምሮ እስከ 6 ወራት የእናት ጡት ወተት ብቻ (ምንም አይነት ተጨማሪ ምግብ/ፈሳሽ ሳይቀላቅሉ ሰጥተውታል?	1.አዎ 2. የለም
508	ለህፃኑ ከ6 ወሩ በፊት ጡጦ አጥብተውታል?	1.አዎ 2. የለም
509	የእናት ጡት ወተት ከተጨማሪ ምግብ በይበልጥ አጥብተውታል?	1.አዎ 2. የለም
510	እስከ6 ወሩ ህፃኑን በ24 ሰአታት ውስጥ የጡት ወተት ስንት ጊዜ ሰጥተውታል?	1.____ጊዜ 2.አላስታውስም
511	ለህፃኑ ልክ በ6 ወሩ ተጨማሪ ምግብ ጀምረውለታል?	1.አዎ 2. የለም
512	ለህፃኑ ልክ በ6 ወሩ የጀመሩለት የመጀመሪያ ተጨማሪ ምግብ ምንድን ነው?	ይግለጹ_____
513	ለህፃኑ ስድስት ወር ከሞላው በኋላ በየቀኑ የሰጡት ምግብ ምንድን ነው?	ይግለጹ_____
514	ህፃኑ ከተወለደ እስከ 2 አመታት ሳያቆርጡ ጡት አጥብተውታል?	1.አዎ 2. የለም
515	የተራ ቁጥር 513 መሌሱ የለም ከሆነ ልጅዎን ጡት ማጥባትዎን ያቆሙት በስንት ወሩ ነው?	_____
516	የተራ ቁጥር 513 መሌሱ የለም ከሆነ ልጅዎን ጡት ማጥባትዎን ያቆሙበት ምክንያት ምንድን ነው?	_____
517	ጀምበር ጠልቃ ጠዋት እሰከምትወጣ ድረስ በየቀኑ ለልጅዎ ጡት ወተት ስንት ጊዜ ሰጥተውታል?	1.__ጊዜ 2.አላስታውስም
518	ጀምበር ወጥታ እሰከምትጠልቅ ድረስ በየቀኑ ለልጅዎ ጡት ወተት ስንት ጊዜ ሰጥተውታል?	1.__ጊዜ 2.አላስታውስም

Annex 4: approval sheet

BAHIR DAR UNIVERSITY

COLLEGE OF MEDICINE AND HEALTH SCIENCES, SCHOOL OF HEALTH SCIENCES

DEPARTMENT OF PEDIATRICS AND CHILD HEALTH NURSING

I, the undersigned declare that this research is my original work, has not been presented for a degree in this or any other university and all sources of materials used for this research have been fully acknowledged.

Principal investigator: Osman Seid (BSc) _____ _____

Signature Date

I hereby certify that I have supervised, read and evaluated this thesis titled "optimal breastfeeding practice and associated factors among mothers of children 24-36 months of age in Tehuledere District, North East Ethiopia, 2020" by Osman Seid is prepared under my guidance.

Advisors:

1. Mr. Shiferaw Birhanu (MSc, Assistant Professor)

Signature: _____ Date: _____

2. Mr. Balew Zeleke (MSc, Assistant Professor)

Signature: _____ Date: _____

We hereby certify that we have examined this thesis entitled "optimal breastfeeding practice and associated factors among mothers of children 24-36 months of age in Tehuledere District, North East Ethiopia, 2020" by Osman Seid is accepted by the board of examiner as satisfying thesis requirements for the degree of Masters of Science in pediatrics and child health Nursing.

External Examiner: Mr. Teshager W/ Georgis (MSc, Assistant Professor)

Signature: _____Date: _____

Internal Examiner: Mr. Yinager Workneh (MSc, Assistant Professor)

Signature: _____ Date: _____

Department Head: Mr. Yinager Workneh (MSc, Assistant Professor)

Signature: _____ Date: _____