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# Exclusive Breast Feeding Practice and its Associated Factors Among Mothers of Seven to Twelve Months Old Infancy Who Visit Paediatrics and Child Health Department, Tibebe Ghion Specialized Hospital, Bahir Dar Town, Northwest Ethiopia, 2022

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**COLLEGE OF MEDICINE AND HEALTH SCIENCE**

**SCHOOL OF MEDICINE**

**DEPARTMENT OF Paediatrics and Child Health**

Exclusive Breast Feeding Practice and its Associated Factors Among Mothers of Seven to Twelve Months Old Infancy Who Visit Paediatrics and Child Health Department, Tibebe Ghion Specialized Hospital, Bahir Dar Town, Northwest Ethiopia, 2022

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A RESEARCH THESIS TO BE SUBMITTED TO DEPARTMENT OF PEDIATRICS AND CHILD HEALTH BAHIRDAR UNIVERSITY, TIBEBE GHION SPECIALIZED HOSPITAL, COLLEGE OF MEDICINE AND HEALTH SCIENCE IN PARTIAL FULFILMENT OF THE REQUIREMENTS OF SPECIALITY IN PAEDIATRICIAN AND CHILD HEALTH

October, 2022,

BahirDar, Ethiopia

BAHIR DAR UNIVERSITY  
 COLLEGE OF MEDICINE AND HEALTH SCIENCE  
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Full Title of The Research Project	Exclusive Breast Feeding Practice and Associated Factors among mothers of 7 to 12 Months Old Infancy who visit Paediatrics Department, Tibebe Ghion specialized hospital 2022.
Duration of The Study	Two months
Study Area	Tibebe Ghion Specialized Hospital BDU, Bahir Dar, Ethiopia
Total Cost of The Study	27,490.70 ETB

## Declaration

This is to certify that the thesis on Exclusive Breast Feeding Practice and Associated Factors among mothers of 7 to 12 Months Old Infancy who visit Paediatrics Department, Tibebe Ghion specialized hospital BahirDar, Ethiopia submitted in partial fulfillment of the requirements for the postgraduate of pediatrics and child health, in Bahir Dar University, is a record of original work carried out by me and has never been submitted to this or any other institution to get any other degree or certificates.

Melesse Teketelew

05/10/2022

Bahir Dar, Ethiopia

Name of the candidate

Date of submission

Place

BAHIR DAR UNIVERSITY

COLLEGE OF MEDICINE AND HEALTH SCIENCES

DEPARTMENT OF PEDIATRICS AND CHILD HEALTH

I herewith certify that I have supervised, read and evaluated this proposal titled *Exclusive Breast Feeding Practice and Associated Factors among mothers of 7 to 12 Months Old Infancy who visit Paediatrics Department, Tibebe Ghion specialized hospital, Bahir Dar, Ethiopia* by *Melense Teketew* prepared under my guidance. I recommend the dissertation be submitted for defense.

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Finally, I would like to thank Tibebe Ghion Specialized hospital staffs, the data collectors and respondents for giving me valuable information.

## Abbreviations and Acronyms

ANC.....	Antenatal Care
AOR.....	Adjusted Odd Ratio
BDU.....	Bahirdar University
CEO.....	Chief executive Organization
C.....	Confidence Interval
CMHS.....	Collage of medicine and Health Science
COR.....	Crudes Odds Ratio
EBF.....	Exclusive breastfeeding
EDHS.....	Ethiopian Demographic and Health Survey
ETAT.....	Emergency Triage Assessment and Treatment
FRH.....	Felegehiwot Referral Hospital
GC.....	.Gregorian calendar
OPD.....	Out Patient Department
NICU.....	Neonatal Intensive Unit
NGO.....	Nongovernmental Organization
PNC.....	Postnatal care
TGSH.....	Tibebe Ghion Specialized Hospital
SDG.....	Sustainable Development Goal
SPSS.....	Statistical Package for Social Science
UNICEF.....	United Nations International Children’s Emergency Fund
WHO.....	World Health Organization

## Contents

Acknowledgements.....	iv
Abbreviations and Acronyms .....	v
List of tables .....	viii
List of Figure .....	viii
Abstract .....	ix
1. Introduction .....	1
1.1. Background.....	1
1.2. Statement of the problem.....	3
1.3. Significant of the study.....	5
2. Literature Review .....	6
2.1. Socio-demographic factors .....	6
2.2. Breast-feeding practice.....	7
Conceptual Framework .....	10
3. Objectives.....	11
3.1. General Objective.....	11
3.2. Specific Objectives .....	11
4. Methods .....	12
4.1. Study areas and Period.....	12
4.2. Study design .....	12
4.3. Populations .....	12
4.3.1. Source of population.....	12
4.3.2. Study population.....	12
4.4. Inclusion and exclusion criteria .....	12
4.4.1. Inclusion criteria.....	12
4.4.2. Exclusion criteria: .....	13
4.5. Sample Size Determination and Sampling procedure .....	13



4.5.1.	Sample Size Determination .....	13
4.5.2.	Sampling procedure.....	13
4.6.	Measurement of variables .....	13
4.6.1.	Dependent variable .....	13
4.6.2.	Independent variables .....	13
4.7.	Operational definitions .....	14
4.8.	Data collection procedures and Tools.....	14
4.9.	Data Quality Control.....	14
4.10.	Data processing and analysis .....	14
4.11.	Ethical Clearance.....	15
4.12.	Dissemination and Utilization of the result .....	15
5.	Result.....	16
5.1.	Socio-demographic characteristics.....	16
5.2.	Obstetric related factors of EBF .....	18
5.3.	Prevalence of exclusive breast feeding .....	18
5.4.	Breast feeding characteristics .....	20
5.5.	Factors associated with Exclusive breast feeding.....	22
6.	Discussion .....	25
7.	Conclusions .....	27
8.	Recommendations .....	27
9.	Limitation of the study .....	27
	References .....	28
10.	Annex .....	30

## List of tables

<b>Table 1:</b> shows socio-demographic characteristics of Exclusive breast feeding practice among mothers whose infancy age 7-12 months visited TGSH Bahir Dar 2022 (N=302). .....	16
<b>Table 2:</b> shows obstetric characteristics of Exclusive breast feeding practice among mothers whose infancy age 7-12 months visited TGSH BahirDar 2022 (N=302).....	18
<b>Table 3:</b> shows Exclusive breast feeding characteristics among mothers whose infancy age 7-12 months visited TGSH BahirDar 2022 (N=302).....	20
<b>Table 4:</b> factors associated with Exclusive breast feeding practice among mothers whose infancy age 7-12 months visited TGSH BahirDar 2022 (n=302). .....	23

## List of Figure

Figure 1 Conceptual framework showing relationship between independent variables and outcome variable, adapted from different result of literature review (26, 29, 32, 36).....	10
Figure 2:shows Prevalence of Exclusive breast feeding among mothers whose infancy age 7-12 months visited TGSH BahirDar 2022 (N=302).....	19
Figure 3 shows feeding practice immediately after gave birth among mothers whose infancy age 7-12 months visited TGSH Bahir Dar 2022(N=302) .....	21

## **Abstract**

**Background:** Exclusive breast-feeding is the practice of feeding breast milk during the first 6 months and no other liquids and solid foods except medications. Despite its demonstrated benefits, exclusive breast-feeding practice in many countries including Ethiopia is lower than the international recommendation. According to the WHO report, 38% of infants aged less 6 months are breastfed exclusively worldwide. The result of this study should be taken evidence for TGSH and also to implement interventions that speed up the government efforts and decrease the rate and burden of infant morbidity.

**Objective:** The aim of this study was to assess exclusive breast feeding Practice and Associated Factors among mothers of 7 to 12 Months Old Infancy who visit Paediatrics Department Tibebe Ghion Specialized Hospital, 2022

**Methods:** An institutional based cross-sectional study was conducted among systematically selected 308 mothers whose have infancy age 7-12month from February 1, to March 30/2022. Data was collected through interviewer-administered structured questionnaire. Each filled questioner was checked for completeness and coded, and then entered into Epi Data version 4.6. Finally data was cleaned and exported into SPSS version 25 for analysis. Binary logistic regression model was employed to assess association of the variables and Multivariable Binary logistic regression Analysis was used to identify the association of independent variables on the outcome variable and those with P-value less than 0.05 will be taken as statistically significance.

**Results:** A total of 302 study participants were enrolled in this study. About 188(62.3%) 95% CI (57%-68%) of mothers were Exclusive breast feeding for six months. Those who had information about Exclusive breast feeding (AOR=5.2; 95%CI: (2.33-11.45)), being housewife occupation (AOR=2.8; 95%CI: (1.4-5.6)), postnatal counselling (AOR=2.4; 95%CI: (1.4-4.2)), knowing importance of colostrum (AOR=2.82; 95%CI: (1.44-5.51)) were independent factors statistically significantly associated with Exclusive breast feeding.

**Conclusion and recommendation:** In this study, 2/3 the infants were Exclusive breast feeding. Having information about Exclusive breast feeding, being housewife occupation, postnatal counselling and knowing importance of colostrum significantly associated with Exclusive breast feeding. Therefore, health education should be given about Exclusive breast feeding

**Key words:** Exclusive breast feeding practice, Tibebe Ghion, Ethiopia.

# **1. Introduction**

## **1.1. Background**

Exclusive breast-feeding is the practice of feeding breast milk during the first 6 months and no other liquids and solid foods except medications(1).

Breast milk contains all of the nutrients needed by children in the first 6 months of life. It is recommended that children be given nothing but breast milk in the first 6 months of their life. Exclusive breastfeeding for 6 months prevents infections such as diarrhea and respiratory illnesses and provides the nutrients and liquid an infant requires for optimal growth and development (2).

Numerous evidence-based interventions exist to reduce neonatal mortality in low resource settings (3, 4).

The health care personnel promote a practice which they practice and believe in. Health care workers are important in the promotion, protection and support of breastfeeding. Their ability to do this may be influenced by their knowledge, personal experience and work (5, 6)

Feeding complementary foods within the first 6 months will have the adverse effect of reducing breast milk output because the production and release of breast milk are modulated by frequency and intensity of suckling(2)

Breast-feeding promotion is an important intervention for the control of infantile diarrhea. Particularly colostrum protects the new born from intestinal infection by its content of secretory immunoglobulin "A" and other immediately acting factors. It may also induce maturation of the child's gastro- intestinal immune defenses, thus contributing to the protection against diarrheal diseases later in infancy (4)

Exclusive and continued breastfeeding has been well established as one of the most important interventions to reduce post neonatal and child mortality (7-11). Exclusive breastfeeding (EBF) for the first 6 months of life improves growth, health and survival status of new born (12).

Exclusive breastfeeding is one of the most natural and best forms of preventive medicine (13, 14) The major reason mentioned by the respondents for termination of breastfeeding was employment (7).

Exclusive breastfeeding for six months reduces gastrointestinal infection and helps the mother lose weight and prevent pregnancy but has no long-term impact on allergic disease, growth, obesity, cognitive ability, or behavior (14)

## **1.2. Statement of the problem**

Exclusive breastfeeding tops the table of life-saving interventions for newborns. Five countries, including Ethiopia, accounted for half of all newborn deaths in the world. It has been estimated that EBF reduces infant mortality rates by up to 13% in low-income countries (15).

Poor infant feeding has negative consequences on the health and development of the children (16).

Approximately 4 million new-borns die annually; the majority in developing countries and one third of these deaths are due to infection (17)

If The current exclusively breastfed trend continues, Approximately 18,000 children globally still die every day (15).

A large cohort study undertaken in rural Ghana concluded that 22% of neonatal deaths could be prevented if all infants were put to the breast within the first hour of birth (16).

Inadequate breastfeeding accounts for 45% of deaths related to neonatal infections, 30% of deaths related to diarrhoea, and 18% of deaths related to acute respiratory diseases among under-five children (18).

Internationally, there has been advancement in improving child survival. However, many declarations were passed to decrease child death by two thirds by 2015 from the level recorded in 1990; in the last two decades, the under-five mortality was diminished by half in 2013, from 12.7 to 6.3 million (19).

Probability of hospital admission due to pneumonia among non-breast-fed children was 17 times greater in the first year and 61 times greater in the first 3 months of life compared with exclusively breast-fed children (20).

Analysis of the effect of breast-feeding on infant mortality in 16 Latin-American countries, concluded that 66% of deaths caused by diarrhoea and respiratory infections in the region could be prevented by EBF in the first 4 months of life (21)

Several strategies have been identified by UNICEF and WHO to promote EBF practices. These include starting breast-feeding within 1hour of births, EBF for first 6 months of infant life, and appropriate weaning after 6 months and complementary foods while continuing to breast feeding for 2 years (22).

The Ministry of Health of Ethiopia has tried to enhance optimal breastfeeding practice by developing training manuals and implementation guidelines on breastfeeding. But breastfeeding practice remains far from the global recommendation (23).

To achieve the Sustainable Development Goal in reducing child mortality, infant breastfeeding has been identified as one of the major intervention areas both globally and nationally (24).

Notwithstanding the fact that appropriate feeding practice is the most cost-effective intervention to reduce child morbidity and mortality, exclusive breastfeeding practices in developing countries are still low (25).

Despite its demonstrated benefits, exclusive breast-feeding practice in many countries including Ethiopia is lower than the international recommendation.

Therefore, the aim of this study was to assess the magnitude of exclusive breast-feeding practice and its associated factors among women who had a child aged 7 to 12 months, which is to implement interventions that speed up the government efforts and decrease the rate and burden of infant morbidity.

### **1.3. Significant of the study**

It is anticipated that findings from this study will contribute to the body of knowledge that informs caregivers and to improve neonatal & child mortality/morbidity.

The result of this study could be taken as base line evidence for TGSH. In addition, the finding of this study could be utilized by other researchers as evidence or as source of recommended research work.



## 2. Literature Review

### 2.1. Socio-demographic factors

The rates of breastfeeding initiation were highest for children born to mothers who were 30 years of age or older, who had more than a high school education, and whose annual household income was >400 of the federal poverty level (26)

Maternal age was significantly associated with exclusive breastfeeding; however, maternal age was not associated with breastfeeding initiation (27).

A study carried out in Brazil showed that non-breast-fed children had a 14-fold risk of dying from diarrhoea and a 3.6-fold risk of dying from respiratory disease in the first year of life compared with children who were exclusively breast-fed (28)

It is interesting to note that there was an increase in the chance of EBF with increasing mother's age until the 25–29 years age group also Multiparity was also significantly associated with EBF (29).

Study done in Gonder, 64.1% mothers who did not practice exclusive breastfeeding for six months, infant formula was the most common form of alternative feeding reported by 65 (36.5%) of respondents, this was followed by cow's milk 28 (15.7%) and home prepared foods 21 (11.8%) (30).

A significantly smaller proportion (72.6%) of children of United States born mothers were exclusively breastfeed (26).

Study done in Wolita Town, Prevalence of EBF computed using since birth dietary recall method was 64.8%. From multivariable analysis, child birth attended by health care provider, postnatal care utilization, and mothers who did not report any breast related problem for the first six months after child birth were factors positively associated with exclusive breastfeeding practice (25).

According to study done in Bahirdar Town, the mean age of the respondents was  $27.2 \pm 4.6$  years. More than two third (73.2%) of mothers were in the age range of 20-29 years. Of the total participants, 74.2% were Orthodox Christian religion followers, and 90% were urban residents. Almost all (97.5%) were Amhara ethnic groups, 24.5% of mothers were not able to read and write, and more than 2/3rd were housewives. Of the total participants, 46% earns an average family monthly income of less than 1000.00 ETB (31).

## 2.2. Breast-feeding practice

Globally, the largest number of newborn deaths (almost 80 percent) occurred in two regions, Southern Asia (39%) followed by sub-Saharan Africa (38%) mainly due to inadequate breast feeding practice in combination with high level of disease. Five countries accounted for half of all newborn deaths in the world, namely India (24%), Pakistan (10%), Nigeria (9%), Democratic Republic of the Congo (4%), and Ethiopia (3%) (19).

Accordingly data from WHO 2016, The global prevalence of Exclusive breast feeding is 38%(1, 32)

Rates of breastfeeding initiation were significantly higher among Hispanic children (81.8%) and lower among non-Hispanic black children (55.5%) than among non-Hispanic white children (76.2%). In addition, a higher prevalence of breastfeeding initiation was observed among subjects who reported positive maternal mental and emotional health (26)

Community based cross-sectional study was done Bahirdar city 2013, practice of exclusive breast feeding was reported in 49.1% of mothers. Among mothers who didn't exclusively breastfeed their children, the main reason reported was the perception that breast milk alone was insufficient(31)

Study done in west and central Africa the prevalence of Exclusive breast feeding is 20%(33) and also Study done in guinea 2018 the prevalence of Exclusive breast feeding is 33%(34)

According to the Ethiopian Demographic Health Survey (EDHS) 2016, only 58% of infants were exclusively breastfed during the survey, which showed slight Improvement, but still lower than the WHO recommendation (35).

Children with birth weights of  $\geq 1500$  g were most likely to have ever been breastfed and least likely to have been breastfed exclusively (27).

It is interesting to note that there was an increase in the chance of EBF with increasing mother's age until the 25–29 years age group also Multiparity was also significantly associated with EBF (29).

Non-Hispanic black children were significantly less likely to have ever been breastfed compared with their non-Hispanic white counterparts. However, no significant differences in the odds of exclusive breastfeeding according to race were observed (27).

Infant breastfeeding was the major intervention for Child mortality Decrement from 422 in 1980 to 251 in 2008 and to 210 per 100,000 live births in 2013. Yet average annual reduction in Africa (1.6%) and sub-Saharan African (SSA) (1.7%) region is slowest of all other region (24).

Even though all the respondents had received ANC, only 34 (19.1%) of the respondents were discussed about breastfeeding during their antenatal period (29).

According to EDHS, 2019, 72% were breastfed within 1 hour of birth, and 91% were breastfed within 1 day of birth. Twelve percent of children received a prelacteal feed. 59% of children under age 6 months are exclusively breastfed; the percentage of exclusive breastfeeding declines with age, from 73% among children age 0-1 months to 40% among those age 4- 5 months (2).

A community-based cross-sectional study was conducted from March to April, 2016 among randomly selected first-time mothers in Bahir Dar city, northwest Ethiopia, Prevalence of exclusive breastfeeding practice 24 h before the survey was 57.3% (36)

Study done on Debretabor, colostrum feeding practice were 74.4%, Colostrum is the first milk that is very important for protecting infections. Since the first milk is rich in immunoglobulin G (32)

Study done in Harer Town, showed that only 45.8% of the mothers exclusively breast-fed their infant. Many of the study participants (69.3%) initiated breastfeeding immediately after delivery. Regarding the frequency of breast-feeding, 40.1% of the mothers fed 2–3times/day, and 37.2% 4–7times/day. In the last 24 hours (recall), 64.6% of them had given their baby extra liquid/solid food. The majority of the study participants provide animal milk (81.5%) as additional liquid and porridge (72.6%) as semisolid food. When asked their reason for giving additional liquids/ semi-solid foods, many of the mothers answered that their baby got hungry (78%), that breast milk alone was not enough (74.8%), and that they did not produce enough breast milk (69.2%) (24).

Among mothers who gave birth vaginally 132 (74.2%) initiated breastfeeding immediately (less than 30 minutes) after delivery. The reason for delayed initiation of breastfeeding amongst the remaining 10 mothers were lack of breast milk 60% and mother or child illness 40% (27).

Amongst mothers who delivered by caesarean section 34 (19.1%) initiated breastfeeding later (after 2–12 hrs). Of the 114 (64.1%) mothers who did not practice exclusive Breast feeding for six months, infant formula was the most common form of alternative feeding reported by 65 (36.5%) of respondents, this was followed by cow's milk 28 (15.7%) and home prepared foods 21 (11.8%) (29).

The overall exclusive breast-feeding practice among the women was found to be less. Age, Information on breast-feeding and early initiation of breast-feeding were found as important predictors of exclusive breast-feeding. Improving access to information on recommended infant feeding is vital, and encouraging exclusive breast-feeding among mothers through proper counseling and mother-friendly work environment is advisable (24).

## Conceptual Framework

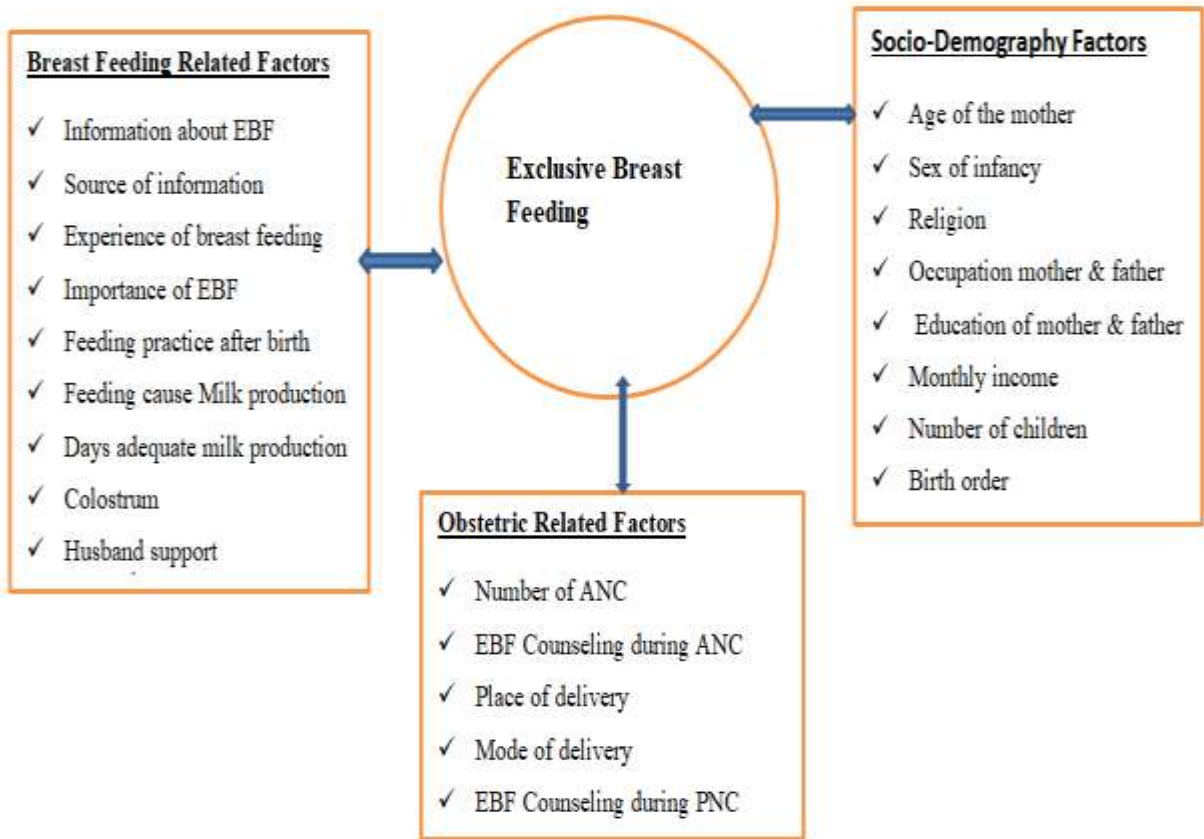


Figure 1 Conceptual framework showing relationship between independent variables and outcome variable, adapted from different result of literature review (26, 29, 32, 36)

### **3. Objectives**

#### **3.1. General Objective**

To assess the Practice and Associated Factors of Exclusive Breast Feeding among mothers of 7 to 12 Months Old Infancy who visit Paediatrics Department TibebeGhion specialized hospital BahirDar Town, Northwest Ethiopia 2022

#### **3.2. Specific Objectives**

- To determine the Practice of Exclusive Breast Feeding among mothers of 7 to 12 Months Old Infancy who visit
- To identify associated factors of Exclusive Breast Feeding among mothers of 7 to 12 Months Old Infancy who visit

## **4. Methods**

### **4.1. Study areas and Period**

The study was conducted at Tibebe Ghion specialized hospital from February 1, to March 30/2022. It is found in Bahir Dar Town at 565 KM Northwest of Addis Ababa, which is the Capital city of the Amhara National Regional State. Tibebe Ghion specialized hospital is a newly established Tertiary care Teaching hospital in Bahir Dar City founded in January, 2018. It has more than 450 bed capacity and gives for more than 94,000 clients as outpatient and inpatient services per year. The hospital provides a wide range of services in different units including gynecology & obstetrics, internal medicine, surgery, paediatrics and childhood, Orthopaedics psychiatry, physiotherapy, ophthalmology, dermatology, laboratory as well as outpatient and emergency units. The pediatric and child health unit has about 112 beds divided into Emergency Triage Assessment and treatment (ETAT), Critical and stable Wards, Neonatal Intensive care unit (NICU) and Pediatric Intensive care Unit (PICU), 6642 infancies were visited paediatric Department in the last one year.

### **4.2. Study design**

An Institution based cross-sectional study was used.

### **4.3. Populations**

#### **4.3.1. Source of population**

All mothers of 7 to 12 months old Infancy who visited Paediatrics' Department of TGS, Amhara Regional State northwest Ethiopia from February 1, to March 30/2022

#### **4.3.2. Study population**

All selected breast feeding mothers of 7 to 12 months old Infancy who visit Paediatrics' Department TGS, Amhara Regional State, Northwest Ethiopia from February 1, to March 30/2022

### **4.4. Inclusion and exclusion criteria**

#### **4.4.1. Inclusion criteria:**

- All mothers whose infancy age 7 to 12month those who visited to Paediatrics' medical/surgical care in TGS, Amhara regional state northwest Ethiopia from February 1, to March 30/2022

#### 4.4.2. Exclusion criteria:

- Infancies whose attendants were father who visited to Paediatrics' medical/surgical care
- Mothers who were critical ill and difficult to respond during the study period

#### 4.5. Sample Size Determination and Sampling procedure

##### 4.5.1. Sample Size Determination

The sample size was calculated using electronic calculator by taking assumptions of population size <10,000, 95% confidence interval with margin of error 0.05, Expected proportion of EBF (57.3%) (36) from previous study. Accordingly the total sample size was determined to be 280, by taking 10% of non- respondent it becomes 308. The required sample was calculated using the following formula:

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

$$[(1.96)^2(0.573)(0.427)] / (0.05)^2 = 375$$

Since the source population is < 10,000 I used final sample size Calculation:

$$N_f = n_i / (1 + n_i/N)$$

$$N_f = 375 / (1 + 375/1107) = 280$$

After adding 10% non-respondents, the final size was 308.

##### 4.5.2. Sampling procedure

Systematic random sampling technique was used to obtain the study sample.

#### 4.6. Measurement of variables

##### 4.6.1. Dependent variable

Exclusive breast feeding (Yes/ No)

##### 4.6.2. Independent variables

- **Socio demographic factors:** Maternal age, infancy age, marital status, residence, Level of Education mother and father infancy sex, occupation of the mother and father ,monthly income, religion, Number of children<5years and birth order.
- **Obstetric characteristics and Breast feeding practice:** Number of ANC, counseling during PNC and ANC, place of delivery, mode of delivery, breast milk production, breast adequate, Colostrum, having information about EBF, primary source of information, Previous experience on breastfeeding, Husband support EBF, feeding practices to start



immediately after birth ,Starting breast feeding within one hour, Knowing important of Exclusive breast feeding

#### **4.7. Operational definitions**

**Exclusive Breast Feeding Practice** : It is 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 (1).

**Colostrum importance:** It is the first milk that is very important for protecting infections(32)

**Initiation of breast milk:** The time at which breastfeeding first started(1)

**Husband support:** supports, encourages and promotes the mother's breastfeeding practice(36)

#### **4.8. Data collection procedures and Tools**

Data was collected by using an interviewer-administered structured questionnaire; several questions that can address the objective of the study were prepared. The questionnaire was adapted from different literatures (6, 15, 26, 27, 29).

Having to parts the first parts was containing baseline data regarding the Socio-demographic ideas on EBF. The remaining part of the check list composes practice of EBF. The questionnaire was developed in English by reviewing various literatures. Pre-test was conducted in FRH and necessary correction on tool was employed accordingly. Data collection was done by trained data collectors (3 interns and 2 nurses) and paediatrics nurse head was supervisor.

#### **4.9. Data Quality Control**

To assure the data quality high emphasis was given in designing data collection tool. Structured data collection tool was utilized and clarity of the tool was tested before the final utilization of the questionnaire. During data collection each data collectors were supervised for any difficulties and direction with necessary correction was provided. Collected questionnaire was checked for completeness and on spot corrective measure was taken both by data collectors and supervisors. Daily meeting was conducted between data collectors, supervisors and principal investigator for discussion regarding presenting difficulties and to assess the progress of data collection.

#### **4.10. Data processing and analysis**

All collected questionnaire was rechecked for completeness and coded. Then these data was entered and cleaned using Epi data version 4.6software, and exported to SPSS version 25 for analysis. Variables having P-value less than 0.25 in the Bivariable logistic regression analysis was taken as significant for Exclusive Breast Feeding & Fitted into multivariable binary logistic

regression model used. P-Value  $<0.05$  at 95% CI in multivariable was taken as statistically significant.

For further analysis, descriptive statistics like frequencies and cross tabulation was performed. Graphical presentation such as tables and pie charts was used to present the result findings of the study.

#### **4.11. Ethical Clearance**

Ethical clearance letter was obtained From the Ethical Review Committee of the BDU, CMHS, and Department of Paediatrics and child health, under the delegation of the BDU. Ethical clearance letter and formal letter also was obtained from BDU, CMHS, and Department of Paediatrics and child health and was submitted to TGSB and permission of hospital was obtained from hospital administrative. Written permission letter was also received from concerned bodies in the study set up.

#### **4.12. Dissemination and Utilization of the result**

The result paper will be submitted to department of pediatrics and child health. The copy of the result will be submitted to research center of Bahir Dar University, collage of medicine and health sciences.

## 5. Result

### 5.1. Socio-demographic characteristics

A total of 302 mothers whose infants age between 7 to 12 months were included in the study, making a response rate of 98%. The ages of mothers were ranged between 16-40 years; the mean age of the respondents was 28.35 years with SD  $\pm 5.18$ . Most of the respondent's age were 20-29 years, which are 137(45.4%). Regarding to marital status 294(97.4%), 8(2.6%), were married & divorced respectively. The distribution of residence, 156 (51.7%) were rural & 146 (48.3%) were Urban. Among the respondents, 253(83.3%) & 49(16.2%) were housewife and employee respectively. In this study 105(34.8%) 1<sup>st</sup> infant, 83(27.5%) 2<sup>nd</sup> infant, 65(21.5%) 3<sup>rd</sup> infant & 49(16.2%) were 4<sup>th</sup> above. See Table 1.

**Table 1:** shows socio-demographic characteristics of Exclusive breast feeding practice among mothers whose infancy age 7-12 months visited TGSH Bahir Dar 2022 (N=302).

Variable	Frequency (n)	Present (%)
<b>Age of mother</b>		
<20	29	9.6
21-29	137	45.4
30-39	129	42.7
40-49	7	2.3
<b>Sex of Infants</b>		
Male	168	55.6
Female	134	44.4
<b>Resident</b>		
Rural	156	51.7
Urban	146	48.3
<b>Marital status</b>		
Married	294	97.4
Divorced	8	2.6
<b>Religion</b>		
Orthodox	280	92.7
Muslim	22	7.3

<b>Occupation of mother</b>		
House wife	253	83.8
Employee	49	16.2
<b>Occupation of father</b>		
Merchant	63	20.9
Farmer	144	47.7
Employee	95	31.5
<b>Education of mother</b>		
Unable read and write	101	33.4
Read and write and above	201	66.6
<b>Educational status of father</b>		
Unable read and write	55	18.2
Read and write and above	247	81.2
<b>Income</b>		
<1000	34	11.3
1000-2999	83	27.5
≥3000	185	61.3
<b>Number of children&lt;5years</b>		
One	144	47.7
Two	77	25.5
Three and above	81	26.8
<b>Birth order</b>		
1 <sup>st</sup>	105	34.8
2 <sup>nd</sup>	83	27.5
3 <sup>rd</sup>	65	21.5
4 <sup>th</sup> and above	49	16.2

## 5.2. Obstetric related factors of EBF

Among the respondents 150(49.7%) were counselled breast feeding during ANC follow up. One hundred ninety five (64.5%) of them had counselled and 107(35.4%) were not counselled for breast feeding during PNC follow up. About 280(92.7%) of them had institutional delivery and 22(7.3%) were home delivery. Among these 267(88.4%) and 35(11.6%) were spontaneous delivery and C/S delivery respectively. Table 2

**Table 2:** shows obstetric characteristics of Exclusive breast feeding practice among mothers whose infancy age 7-12 months visited TGSH BahirDar 2022 (N=302).

Variable	Frequency (n)	Present (%)
<b>Number of ANC visit</b>		
No	13	4.3
One time	9	3
Two time	15	5
Three	103	34.1
Four times and above	162	53.6
<b>Counselling during ANC for EBF</b>		
Yes	150	49.7
No	152	50.3
<b>Place of delivery</b>		
Home	22	7.3
Institutional delivery	280	92.7
<b>Mode of delivery</b>		
Vaginal delivery	267	88.4
C/S	35	11.6
<b>Counselling during PNC for EBF</b>		
Yes	195	64.6
No	107	35.4

## 5.3. Prevalence of exclusive breast feeding

In this study 188(62.3%) 95% CI (57%-68%) of mothers were Exclusive breast feeding for six months whereas 114(37.7%) were not exclusively breast feed for six months.

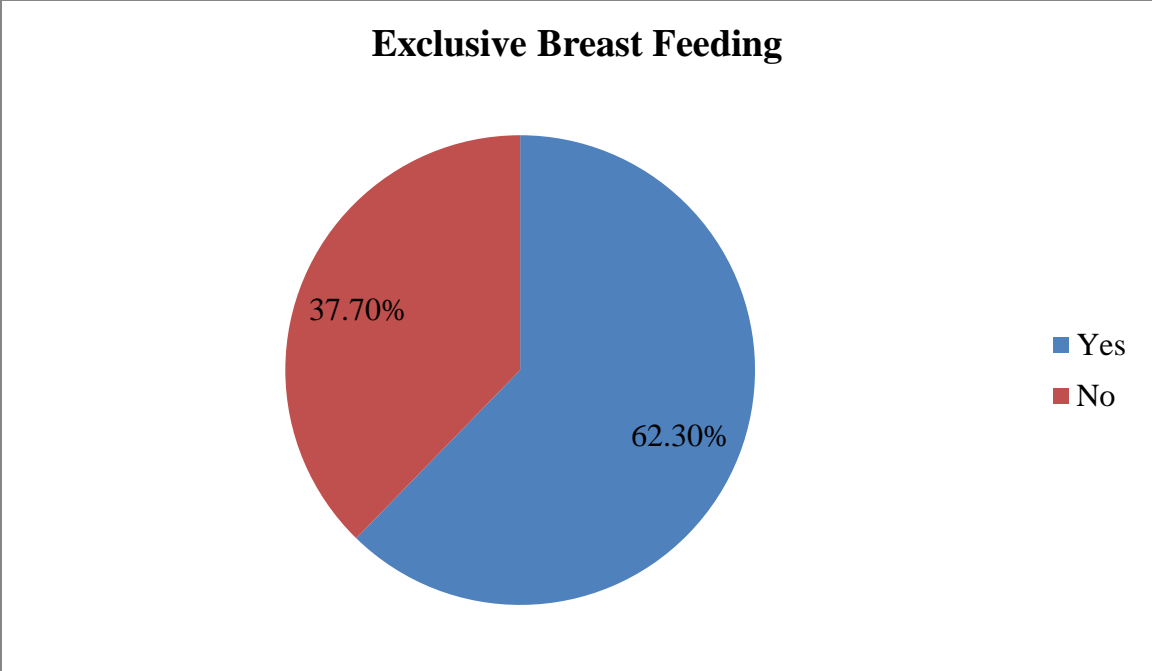


Figure 2: shows Prevalence of Exclusive breast feeding among mothers whose infancy age 7-12 months visited TGSB BahirDar 2022 (N=302).

#### 5.4. Breast feeding characteristics

About 260(86.1%) had information about EBF from these 156(51.7%) from health worker, 59(19.5%) from mass media, 45(14.9%) from neighbours respectively. About 193 (63.9%) were planned for EBF during pregnancy and the rest 109(36.1%) were not planned for EBF. One hundred seventy nine (59.3%) had experience on breast feeding and 123(38.7%) were not experienced on breast feeding.

Among the respondents after gave birth, 233(77.2%), 52(17.2%), 17(5.6%) were feeding breast milk, formula & cow milk respectively (see Fig 3). Among the respondents 156(51.7%) know the important of EBF whereas 146(48.3%) did not know. Also 144(47.7%) & 158(52.3%) were known the initiation of breast feeding can produce breast milk & did not known the initiation of breast feeding can produce breast milk respectively and also 228(75.5%) were know importance of colostrum whereas 74(24.5%) did not know importance of colostrum

Among the respondents, 255(84.4%) husbands were support EBF whereas 47(15.6%) were did not support EBF

**Table 3:** shows Exclusive breast feeding characteristics among mothers whose infancy age 7-12 months visited TGSB BahirDar 2022 (N=302).

Variable	Frequency	Present
<b>Have information about EBF</b>		
Yes	260	86.1
No	42	13.9
<b>primary source of information</b>		
Health Worker	156	51.7
Mass Media	59	19.5
Neighbour's	45	14.9
<b>Previous experience on breastfeeding</b>		
No	123	40.7
Yes	179	59.3
<b>Knowing important of Exclusive breast feeding</b>		
Yes	156	51.7
No	146	48.3

<b>breast feeding, initiate breast milk production</b>		
Yes	144	47.7
No	158	52.3
<b>postnatal days adequate milk production</b>		
Immediately after birth	27	8.9
Two to Four day	64	21.2
I do know	211	69.9
<b>The importance of Colostrum feeding</b>		
Yes	228	75.5
No	74	24.5
<b>Husband support for EBF</b>		
<b>Yes</b>	255	84.4
<b>No</b>	47	15.6

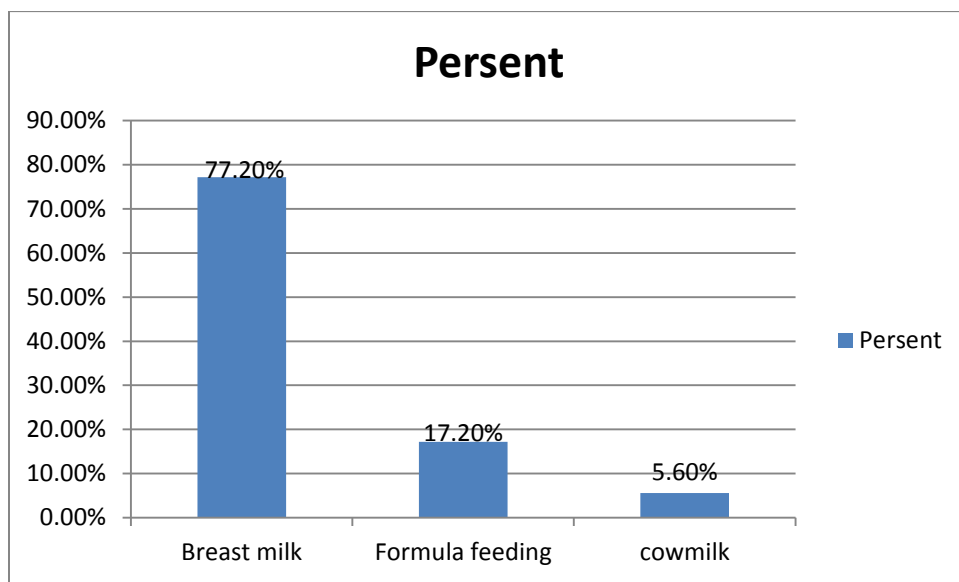


Figure 3 shows feeding practice immediately after gave birth among mothers whose infancy age 7-12 months visited TGSH Bahir Dar 2022(N=302)



### 5.5. Factors associated with Exclusive breast feeding

Both Bivariable and multivariable binary logistic regression analysis were used to identify the association of independent variables with the dependent variable.

In Bivariable logistic regression analysis; marital status, Occupation of mother, level of education of mother and father, Counselling during PNC for EBF, place of delivery, Having information about EBF, Knowing importance of Colostrum and husband support are candidate variable for multiple variable logistic regression analysis.

On multivariable Binary logistic regression analysis those who had information about exclusive breast feeding had significant association with exclusive breast feeding (p value < 0.05). (AOR=5.2; 95%CI: (2.33-11.45)). Among mothers who had information about exclusive breast feeding, had 5.2 odd of exclusive breast feeding than those who did not have information about exclusive breast feeding and also those mothers who were being housewife of their occupation had significant association with exclusive breast feeding (p value < 0.05). (AOR=2.8; 95%CI: (1.4-5.6)). Mothers whose occupation of housewife had 2.8 odd of exclusive breast feeding than those who were employee. Those who had Postnatal counseling about exclusive breast feeding during PNC follow up had significant association with exclusive breast feeding (p value < 0.05). (AOR=2.4; 95%CI: (1.4-4.2)). Among mothers who having Postnatal counseling about exclusive breast feeding had 2.4 times of exclusive breast feeding than those who had not Postnatal counseling about exclusive breast feeding And also those mothers who were knowing importance of colostrum milk had significant association with exclusive breast feeding (p value < 0.05). (AOR=2.82; 95%CI: (1.4-5.51)). Among mothers who knew important of colostrum milk feeding had 2.82 odd of exclusive breast feeding than those who did not know important of colostrum (see **Table 4**).

**Table 4:** factors associated with Exclusive breast feeding practice among mothers whose infancy age 7-12 months visited TGSB BahirDar 2022 (n=302).

Variable	EBF		COR(95% CI)	AOR(95%CI)	P- value
	Yes	No			
<b>Occupation of mother</b>					
House wife	164	89	1.9(1.03-3.55)	2.8(1.3-5.6)	<b>0.003</b>
Employee	24	25	1	1	
<b>Education status of mother</b>					
Unable read and write	54	47	1	1	0.84
Read , write and above	134	67	1.7(1.06-2.83)	1.07(0.5-2.2)	
<b>Educational status of father</b>					
Unable read and write	25	30	1	1	0.107
Read , write and above	163	84	2.3(1.28-4.21)	1.77(0.88-3.58)	
<b>Place of delivery</b>					
Home	9	13	1	1	0.14
Institutional delivery	179	101	2.5(1.05-6.19)	2(0.78-5.87)	
<b>Marital status</b>					
Married	186	108	5.16(1.02-26.05)	3.9(0.66-22.8)	0.13
Divorced	2	6	1	1	
<b>Counselling during PNC for EBF</b>					
Yes	137	58	2.59(1.59-4.22)	2.4(1.4-4.2)	<b>0.002</b>
No	51	56	1	1	
<b>Have information about EBF</b>					
Yes	178	82	6.9(3.25-14.8)	5.2(2.33-11.45)	<b>0.001</b>
No	10	32	1	1	
<b>Knowing important of EBF</b>					
Yes	107	39	2.54(1.56-4.11)	1.4(0.77-2.61)	0.26
No	81	75	1	1	
<b>The important of Colostrum feed</b>					
Yes	56	18	2.26(1.25-4.09)	2.8(1.44-5.5)	<b>0.002</b>
No	132	96	1	1	

<b>Husband support for EBF</b>					
<b>Yes</b>	167	88	2.3(1.2-4.4)	1.4(0.69-3.22)	0.3
<b>No</b>	21	26	1	1	

## 6. Discussion

In this study, the prevalence of Exclusive breast feeding was 62.3%, 95% CI (57%-68%). The current study is similar with study done Boditi Town (wolita) 64.8% (95% C.I= 60%-69%) (30) and also mini EDHS 2019 which is 59%. This similarity between these findings might be due to the fact that most of the studies were conducted in the same country and continent and it is believed that these countries will not have significant difference in their socio demographic characteristics. The current study is higher than study done at Guinea (33%) (32), west and Central Africa (20%)(33), Harar Town (45.8%)(23).this may be due to, study period difference, majority of respondent in Guinea were rural and no formal education, high home delivery, and low ANC follow up compeer to our study. But lower than study done at USA (72.6%) (26). This difference may be partly explained by differences in, economical status, level of education and health facilities.

According to this study, Information about exclusive breast feeding, being housewife occupation, having postnatal counselling and knowing importance of colostrum significantly associated with Exclusive breast feeding.

In this study, information about about exclusive breast feeding had significant association with exclusive breast feeding ( $p$  value  $< 0.05$ ). Among mothers who were information about exclusive breast feeding had 5.2 times more likely of exclusive breast feeding than those who were not information about exclusive breast feeding. These is similar with study done in Harar town which is ,those who have information about exclusive breast feeding high likely exclusive breast feeding(23, 27). These may be due the same geographical area, the same health policy and the same health facilities and also, our study and study done on harer had almost equal ANC follow up which were 95.7% and 94.5% respectively.

According to the study, those who were house wife had significant association with exclusive breast feeding ( $p$  value  $< 0.05$ ). Among mothers who were being house wife, had 2.8 times exclusive breast feeding than those who were employee. Study in Gondar, resumption of work after 3 months were independently associated with exclusive breastfeeding(6). This may be, there is no prepared room for the infancy around working area and also our county civil servant resumption of work only for 4months.

In this study, those who had got postnatal counselling about exclusive breast feeding were significant association with exclusive breast feeding. Those mothers who had got postnatal

counselling about exclusive breast feeding had 2.4 times more likely exclusive breast feeding than those who hadn't got postnatal counselling about exclusive breast feeding. This is similar with the study done in wolita, those who had postnatal care, 1.9times EBF than who was not postnatal care(30). Thais similarity may be due to the same health facilities and the same geographical area. According to this study, those who had known the importance of colostrum had significant association with exclusive breast feeding. Among mothers who were know the important of colostrum had 2.82 odd of exclusive breast feeding than those who were not know the important of colostrum. Colostrum protects the new born from intestinal infection and against diarrheal diseases later in infancy by its content of secretary immunoglobulin "A" and other immediately acting factors (4).Even if its importance studied, There is no any study which support our finding.

## **7. Conclusions**

Accordingly this study, 2/3 the infants were Exclusive breast feeding. Information about exclusive breast feeding, being housewife occupation, having postnatal counselling and knowing importance of colostrum significantly associated with Exclusive breast feeding.

## **8. Recommendations**

Based on these finding we recommend:

1. The concerned body should be given health education about importance of EBF and importance of colostrum
2. Postnatal Counseling should be given for the mothers during postnatal follow up

## **9. Limitation of the study**

The study is expected to be prone for the limitation of a cross-sectional study (temporal relationship)

## References

1. WHO. Indicators for Assessing Infant and Young Child Feeding Practices Country Profiles. Geneva, Switzerland: , world health organization; . . WHO press. 2010.
2. [Ethiopia] EPHIE, ICF. Ethiopian Public Health Institute (EPHI) [Ethiopia] and ICF. 2021. Ethiopia Mini Demographic and Health Survey . . Final Report Rockville, Maryland, US. 2019.
3. GL D, ZA B, S C, T A, N W, L dB. Evidence-based, cost-effective interventions: how many newborn babies can we save? . Lancet. 2005;365(9463):977–88.
4. K W, P C, A L, M R, A S, D K, et al. Effects of vitamin A or beta carotene supplementation on pregnancy-related mortality and infant mortality in rural Bangladesh:. cluster randomized trial. 2011;305(19):1986–95.
5. UNICEF. Committing to Child Survival. A Promise Renewed Progress Report,New York. 2014.
6. Dachew BA BB. Breastfeeding practice and associated factors among female nurses and midwives at North Gondar Zone, Northwest Ethiopia: a cross-sectional institution based study. Int Breastfeed J. 2014;9(1):746-4358.
7. CG V, PG S, JP V, LC N, C L, AM T, et al. Evidence for protection by breast-feeding against infant deaths from infectious diseases in Brazil. Lancet 2011;2(8554):319–22.
8. J C, RA E, M R, S S, BZ M, Y K, et al. Early initiation of breastfeeding and the risk of infant diarrhea in rural Egypt. Pediatrics. 2017;104(1).
9. Organization WH. Effect of breastfeeding on infant and child mortality due to infectious diseases in less developed countries: a pooled analysis. WHO Collaborative Study Team on the Role of Breastfeeding on the Prevention of Infant Mortality. Lancet. 2014;355(9202):451–5.
10. S A, RE B, G A, A B, L C, S B. Exclusive breastfeeding reduces acute respiratory infection and diarrhea deaths among infants in Dhaka slums. Pediatrics 2014;108(4).
11. Organization WH. The Global Strategy for Infant and Young Child Feeding Geneva. . World Health Organization. 2003.
12. Organization WH. Indicators for Assessing Breastfeeding Practices Report of an informal meeting Geneva. 2014.
13. Organization WH. Indicators for assessing infant and young child feeding practices. Switzerland, Geneva,WHO. 2008.
14. Central Statistical Agency (CSA) [Ethiopia] and ICF. Key Indicators Report,CSA and ICF, Addis Ababa, Ethiopia, Rockville, Me, USA,. Ethiopia Demographic and Health Survey. 2016.
15. Tesfaye S. “Factors associatedwith exclusive breastfeeding practice among mothers in Goba district, Southeast Ethiopia,”. International Breastfeeding Journal. 2012;7(17).
16. CA M, Evoluc, nutric aod, anos aoin. 90. In: Velhos e novos males da saú de no Brasil: a evoluc,aãõ do pai’s e suas doenc,as. Saõ Paulo: Hucitec. Nupens/USP. 2009.
17. JE L, S C, J Z. 4 million neonatal deaths: when? Where? Why? Lancet. 2005;365(9462):891–900.
18. Sharma A. “Efficacy of early skin to skin contact on the rate of exclusive breastfeeding interms of neonates,” African Health Sciences. 2016;16(3):790–7.

19. CG V, Smith PG, JP V, C L, SMC F, LP G. Evidence for protection by breastfeeding against infant deaths from infectious diseases in Brazil. *Lancet* 2013;2:317–22.
20. AP Bn, M O, J L, J V. Ecological study of effect of breastfeeding on infant mortality in Latin America. *British Medical Journal*. 2001;6:323: 03.
21. Ethiopia CSA, ICF. Key Indicators Report. Addis Ababa, Ethiopia, and Rockville, Maryland, USA: CSA and ICF Ethiopia Demographic and Health Survey. 2016.
22. Health EFMo, UNICEF. Forces to Promote Safe Breastfeeding. Addis Ababa. 2014.
23. M T, Y Y. Exclusive Breast Feeding and Its Associated Factors Among Mothers of <12 Months Old Child in Harar Town, Eastern Ethiopia,. *Dove Press journal*. 2021.
24. R J, Jones, D M, Kogan, K G, Singh, et al. Factors Associated With Exclusive Breastfeeding in the United States,. *American Academy of Pediatrics*. 2011;10:2011-0841.
25. Patil S, Yadavannavar M. "Socio cultural factors affecting breast feeding practices and decisions in rural women,". *International*

*Journal of Plant, Animal and Environmental Sciences*. 2011; vol. 1, no. 2:46–50.

26. Duijts L, V. VW, Jaddoe, Hofman A, A H. Prolonged and Exclusive Breastfeeding Reduces the Risk of Infectious Diseases in infancy. *American Academy of Pediatrics, MollPediatrics* published online Jun 21. 2010;10:2008-3256.
27. Pu'blica dSd, Paulo UdSo, Paulo So. Brazil Individual and contextual determinants of exclusive breast-feeding, . 2015.
28. JA Cs, CG V, FC B, IS S, JA F. Impact of breast feeding on admission for pneumonia during postneonatal period in Brazil: nested case–control study. *British Medical Journal*. 2011;318:1316–20.
29. A. B, B B. Breastfeeding practice and associated factors among female nurses and midwives at North Gondar Zone, Northwest Ethiopia,. *International Breastfeeding Journal*. July 2014.
30. A G, A K, A N, MolalegnM, TakluM. Exclusive Breastfeeding Practice and Associated Factors among Mothers in Boditi Town, Wolaita Zone, Southern Ethiopia, 2018. Published 1. 2019.
31. S A, B D, A W, T T. Determinants of exclusive breastfeeding practice among mothers of children age less than 6 month in Bahir Dar city administration, Northwest Ethiopia; a community based cross-sectional survey *Science Journal of Clinical Medicine* 2013;2(6): 153-9
32. A. BMAY. Early initiation of breastfeeding and colostrum feeding among Debre Tabor, northwest Ethiopia:

Bereket Molla Abie<sup>1\*</sup> and Yitayal. *BMC Research Notes*. 2019;6.

33. Ogbo FA EJ, Page A, Efe-Aluta O. The impact of sociodemographic and health-service factors on breastfeeding

in sub-Saharan African countries. *Public Health Nutr*. 2017;20.

34. WHO. The data repository. World Health Organization. WHO press. 2016.
35. UNICEF. Committing to Child Survival: A Promise t. New York. Renewed

Progress Report. 2014.

36. A T. Exclusive breastfeeding practice and associated factors among first-time mothers in Bahir Dar city, North West Ethiopia, removed: A community based cross sectional study. *heliyon*. 2016;6(e04732).



**10. Annex**

**BAHIRDAR UNIVERSITY COLLEGE OF MEDICINE AND HEALTH SCIENCES**

Consent form from ID number \_\_\_\_\_

This questionnaire is prepared to identify the Practice of Exclusive Breast Feeding at TGSH. I am doing the research as partial fulfillment of the requirements for speciality in Pediatrics and Child at Bahirdar University. I am collecting data among mothers of 7 to 12 Months Old infancy to Practice of Exclusive Breast Feeding. I am going to ask you some questions that are very important for the study. Your name will not be written in this form and the information you give is kept confidential and used only for this study. If you do not want to answer all or some of the questions, you have the right to do so. However, your willingness to answer all of the questions would be appreciated.

Would you participate in responding to the questions in this questionnaire? -----Yes -----No

**Name and signature of data collector who sought the consent.....**

**Date.....**

**Name and signature of supervisor.....**

**Date .....**

## QUESTIONNAIRE

This questionnaire is prepared to identify the Practice of Exclusive Breast Feeding at TGSB

### I. Socio demographic characteristics

Sr No.	Questions	Response	Remark
1.1	<b>Age of mother</b>	-----years	
1.2	<b>Age of child</b>	-----month	
1.3	<b>Sex of child</b>	1. Male 2. Female	
1.4	<b>Residency</b>	1. Urban 2. Rural	
1.5	<b>Marital status</b>	1. Married 2. Single 3. Divorced 4. Widowed	
1.6	<b>Religion</b>	1. Orthodox Christian 2. Muslim 3. Protestant 4. Others specify	
1.7	<b>Mother's occupational status</b>	1. Housewife 2. Merchant 3. Employee 4. Others specify-----	
1.8	<b>Father's occupational status</b>	1. Merchant 2. Farmer 3. Government employee 4. Privet employee 5. Others, specify-----	
1.9	<b>Mother's Educational status</b>	1. Unable to read and write 2. Read and write 3. Primary education 4. Secondary education 5. Collage education and above	
1.10	<b>Husband's educational status</b>	1. Unable to read and write 2. Read and write 3. Primary education 4. Secondary education 5. Collage education and above	
1.11	<b>Household average monthly Income</b>	1. Less than 1000 2. 100-2999 3. Greater than or equal to 3000	

## II. Maternal-infant related characteristics

Sr No.	Questioner	Response	Remark
2.1	<b>Total number of under _ &lt;5 children</b>	1. One 2. Two 3. Three and above	
2.2	<b>Birth order of this infant</b>	1. First 2. Second 3. Third 4. Fourth and above	
2.3	<b>Number of Antenatal care visits</b>	1. No 2. Once 3. Two times 4. Three times 5. Four times and above	
2.4	<b>Counselling on Exclusive breast feeding during Antenatal care visit?</b>	1. No 2. Yes	
2.5	<b>Place of delivery</b>	1. Home 2. Health Institutions	
2.6	<b>Mode of delivery</b>	1. Normal/Vaginal 2. Caesarean section	
2.7	<b>Counselling regarding infant feeding during postnatal care?</b>	1. No 2. Yes	

## III. Breastfeeding and related characteristics

Sr No	Questioner	Response	Remark
3.1	<b>Have information about EBF?</b>	1. No 2. Yes	<b>If yes, Answer Q 3.2</b>
3.2	<b>Where is your primary source of information?</b>	1. Community /Health worker 2. Mass Media 3. Neighbour's 4. Others specify.....	
3.3	<b>Previous experience on breastfeeding=</b>	1. No 2. Yes	
3.4	<b>Did you feed exclusive breast feeding for the first six month for your infancy?</b>	1. No 2. Yes	
3.5	<b>Which feeding practices are you interested to start after birth?</b>	1. Only breast feeding 2. Initially formula feeding 3. Cow milk 4. Cow milk with breast milk	
3.6	<b>Do you know important of Exclusive breast feeding?</b>	1. Yes 2. No	
3.7	<b>Do you know early initiation of breast feeding, initiate milk production?</b>	1. Yes 2. No	

<b>3.8</b>	<b>After how many postnatal days you expect copious milk production?</b>	<b>1.</b> Immediately after birth <b>2.</b> Two to Four day <b>3.</b> I do know	
<b>3.9</b>	<b>Do you know the important of Colostrum feeding?</b>	<b>A.</b> No <b>B.</b> Yes	
<b>3.10</b>	<b>Did you Husband support for EBF?</b>	<b>1.</b> No <b>2.</b> Yes	