HARAMAYA UNIVERSITY

DIRECTORATE OF POST GRADUATE STUDIES

Prevalence of Exclusive Breastfeeding and Its Associated Factors Among Mothers with Children 0-6 Months Attending Hospitals in Hargeisa City, Somaliland.

MPHN Thesis

College: Health and Medical Sciences, School of Graduate Studies

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Haramaya University, Harar, Ethiopia

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PREVALANCE OF EXCLUSIVE BREASTFEEDING AND ITS ASSOCIATED FACTORS AMONG MOTHERS ATTENDING HOSPITALS IN HARGEISA CITY, SOMALILAND.

A Thesis Submitted to the College of Health Sciences, School of Graduate Studies, Haramaya University

In Partial Fulfillment of the Requirements for the Degree of Master Of Public Health Nutrition

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APPROVAL SHEET
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BIOGRAPHICAL SKETCH

I was born in Hargeisa, where I completed my primary, secondary, and preparatory education. In 2014, I enrolled at the University of Hargeisa, earning a BSc in Nutrition and Food Science in 2018. Following graduation, I served as a National Service staff member and Assistant Lecturer at the University of Hargeisa. In 2020, I began my master's program in Public Health Nutrition at Mekelle University. Due to security instability, at the end of 2022 I transferred to Haramaya University MPH program in public health nutrition to complete my thesis, Currently, I am a Public Health Officer at SOS Children's Village Somaliland.

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ACRONYMS AND ABBREVIATIONS

ANC	Antenatal Care
AOR	Adjusted Odds Ratio
C-section	Cesarean Section
COR	Crude Odd Ratio
EBF	Exclusive Breastfeeding
EDHS	Ethiopian Demographic Health system
HU	Haramaya University
IYCF	Infant and Young Child Feeding
MCH	Maternal Child Health
OR	odds ratio
PNC	Postnatal care
SLHDS	Somaliland Health and Demographic Survey
SPSS	Statistical Package of Social Science
UNICEF	United Nation International Children's Emergency Fund
WHO	World Health Organization

ABSTRACT

Background: Exclusive breastfeeding is defined as feeding breast milk only, for the first six months**,** only 40% of children worldwide exclusively breastfed which is far from the recommendation, while in Africa only 37% of infants were exclusively breastfed. In Somaliland the Demographic health survey showed that only 30% exclusively breastfed among infants aged 0–6 months**.** The World Health Organization recommends exclusive breastfeeding for the first six months, however, exclusive breastfeeding practice in Somaliland is not well practiced and previous studies had omitted some of the determinant factors such as mothers' attitudes towards exclusive breastfeeding, so the aim of this study is to assess the extent of exclusive breastfeeding practice and associated factors among mothers attending a selected hospitals in Hargeisa city, Somaliland from January 2025 to March 2025.

Objective: To assess the prevalence of exclusive breastfeeding and its associated factors among mothers attending a selected hospitals in Hargeisa city, Somaliland from January 2025 to March 2025.

Method: A facility -based cross-sectional study was conducted among 630 randomly selected mothers with children who are less than 6 months attending in a selected Hospitals in Hargeisa City, Somaliland. Data was collected using a pretested and structured questionnaire. Data were entered into Epi-Data version 3.1.1 and exported to SPSS version 23 for analysis. Bivariable analysis identified variables for multivariable analysis, which controlled for potential confounding factors. Adjusted odds ratios (AOR) with 95% confidence intervals were calculated to assess the association between predictors and outcome variable. Statistical significance was set at $p < 0.05$, and results are presented in tables. The level of statistical significance was declared at P-value < 0.05 and the result was presented as tables.

Result: The overall prevalence of exclusive breastfeeding in this study was 54%, Having ANC visit (AOR=2, 95% CI: 1.37-3.29), normal delivery (AOR=1.63, 95% CI: 1.05-2.52), frequency of breastfeeding (AOR =6.6, 95% CI: 4.24 – 10.18) family support (AOR= 1.62(1.07-2.44), good knowledge (AOR= 2.46, 95% CI 1.58-3.83) , positive attitude (AOR= 3.0 (2.13, 4.21) were more likely to practice exclusive breastfeeding.

initiation of breastfeeding, after hours (AOR: 0.43, 95% CI: 0.27-0.69), after days: (AOR: 0.30, 95% CI: (0.16-0.54), were less likely to practice exclusive breastfeeding

Conclusion: The prevalence of this study of exclusive breastfeeding was 54%, The prevalence of this area is moderate according to the World Health Organization guideline. initiation of breastfeeding, frequency of breastfeeding, ANC Visit, mode of delivery, family support, good knowledge and positive attitude was statistically significant with exclusive breastfeeding in the multivariable analysis. It recommended to the health institutions, healthcare workers and other concerned parties to enhance Antenatal and postnatal care by developing and implementing programs that educate mothers on the importance of exclusive breastfeeding.

Key words: Exclusive breastfeeding, prevalence, assessment, factors associated, Hargeisa, Somaliland.

1. INTRODUCTION

1.1 Background

Breast milk is an essential and nutritive diet for the healthy growth and development of infants. Exclusive breastfeeding (EBF) is optimal breastfeeding practice during the first 6 months of an infant's age, where the infant consumes only human milk with no supplementation of any type of solid or liquid food except vitamins, minerals, and medications(Ismail Mohamed et al. 2020). The World Health Organization (WHO) recommends exclusive breastfeeding (EBF) for the first six months of life; it is the only safe, nutritious, and complete food that a mother can give her newborn (Salim 2020).

Breastfeeding promotes physical growth, cognitive development, and the overall health of the child (Ismail Mohamed et al. 2020a).Breast milk contains natural antibodies and substances that empower the immune system; therefore, infants who have been breastfed optimally have a reduced risk of common childhood illnesses such as gastrointestinal and respiratory infections, otitis media, atopic eczema, and allergies, as well as all-cause and infection-related neonatal mortalities ((Mamo et al. 2020). Exclusive breastfeeding is the most widely known and effective intervention for preventing early-childhood deaths.

Despite the WHO recommendations and benefits of EBF, many infants do not exactly receive optimal feeding; globally, only about 44% of infants aged 0–6 months were exclusively breastfed over the period of 2015–2020, and it is expected to rise to 70% by 2030, but it is still a long road to achieve 100% global target coverage (WHO, 2021).

Based on UNICEF guidelines, the Somaliland Ministry of Health Development recommends proper IYCF practices and it seeks to achieve the following key objectives: ensuring that policies and legislation that are supportive of optimal IYCF practices are enacted; implementing IYCF programs and plans of action; and raising awareness of the scale and magnitude of EBF and prioritizing responses to identified pertinent infant and young child feeding issues (National Infant and young Child Feeding Strategy for Somaliland Ministry of Health Republic of Somaliland Produced with support from UNICEF. 2016).

Therefore, this study was aimed at determining the prevalence of exclusive breastfeeding practice and its associated factors in Hargeisa City, Somaliland, which is not well documented.

1.2 Problem statement

Optimal breastfeeding could save the lives of more than 820,000 children under age 5 every year, with the majority (87 percent) under 6 months of age (UNICEF 2018). Apart from the recommendations of WHO and UNICEF, the prevalence of EBF is below the international recommendation in many countries, and non-exclusive breastfeeding practice has been significantly associated with increased infant and young child mortality. Almost 96% of all infant deaths, which means 1.24 million deaths occur during the first 6 months of life, are attributed to non-exclusive breastfeeding (Alebel et al. 2018). Only two out of every five newborns are breastfed within the first hour of life worldwide, implying that for 42% of infants, early breastfeeding initiation is critical for both mother and baby (UNICEF, 2016).

In the case of Africa, the rate of exclusive breastfeeding is low and has been neglected to reach the global target coverage; only 37% of infants under 6 months of age in Africa were exclusively breastfed in 2017, and only six of the 94 low- and middle-income countries are on course to meet the WHO target of at least 70% exclusive breastfeeding prevalence by 2030 (Bhattacharjee et al. 2017;)(Dr Dickson Amugsi 2021).

The key findings from the Somaliland health and demographic survey in 2020 indicate the prevalence of early initiation of breast feeding in the first hour of birth is 69%, and 30% of children aged 0–6 months were exclusively breastfed (The Somaliland Health and Demographic Survey 2020). In Somaliland, infant and young child feeding indicators are quite alarming, and gaps are noted at the policy and institutional levels as well as in service delivery at the health facility, community, and household levels. The analysis specifically points to a lack of coordination among IYCF implementing partners as well as a lack of national operational targets on IYCF; thus, the National IYCF strategy is thought to be the key to a comprehensive, integrated, and coordinated approach to IYCF programming (National Infant and young Child Feeding Strategy for Somaliland Ministry of Health Republic of Somaliland Produced with support from UNICEF. 2016).

There are also several factors that can affect the pattern of EBF practice in Somaliland, like in other developing countries: sociocultural factors (Théodore et al. 2019),poor professional counseling on breastfeeding, knowledge and attitude on EB (Jama et al. 2020), place of delivery (Mohamed et al. 2019),mode of delivery (Erbaydar 2020),antenatal service utilization (Jama et al. 2020), and manipulative marketing of a breast milk substitute (Bhattacharjee *et al.*, 2021) Poor EBF practice during a child's first 6 months of life causes morbidity, mortality, and delayed mental and motor development (Getachew Arage1 and Haileyesus Gedamu1 2016).

Despite many studies conducted on exclusive breastfeeding and the well-recognized importance of the practice, the practice is not widespread in the developing world, and the increase on the global level is still very modest with much room for improvement. Furthermore, the associated factors vary by country and even within the same country; however, exclusive breastfeeding practice in Somaliland is not well practiced as recommended, which increases malnutrition and puts the child at risk for proper growth and development. This also makes a challenge to be one of the few countries that meets the global target of exclusive breastfeeding coverage (National Infant and young Child Feeding Strategy for Somaliland Ministry of Health Republic of Somaliland Produced with support from UNICEF. 2016).And because there is a paucity of scientific research that investigates the prevalence of exclusive breastfeeding and its associated factors, there is a need for more research on it to make exclusive breastfeeding a public health issue that requires supportive intervention at all levels, and previous studies had omitted and insufficiently explored some of the determinant factors such as mothers' attitudes towards exclusive breastfeeding, which have led to inconclusive findings (Ismail Mohamed et al. 2020).Thus, this current study would fill that gap by assessing the prevalence of exclusive breastfeeding and all other previously missing determinant factors among mothers with children younger than six months in Hargeisa city, Somaliland.

1.3 Significance of the study

This study aims to generate information on exclusive breastfeeding practices and their associated factors among mothers of children younger than six months in Hargeisa, Somaliland. Assessing these factors and understanding how much they influence exclusive breastfeeding practices would be useful for the Ministry of Health (MOH), NGOs), Hospitals and other health service providers in identifying specific needs and gaps that may still exist on practicing EBF, This understanding will help shape effective and evidence-based public health interventions and strategies, and it will provide healthcare providers with more scientific evidence on the importance of exclusive breastfeeding (EBF) in advocating for the practice.

Additionally, this research will contribute to the global knowledge base, providing insights that may be applicable to other regions and informing best practices in breastfeeding promotion. Lastly, the findings of this study can serve as baseline data for future related research, as continuous evaluation and understanding of breastfeeding dynamics are essential for sustaining and enhancing child health outcomes in Hargeisa and beyond

1.4 OBJECTIVES

1.4.1 General objective

- To assess the prevalence of exclusive breastfeeding and its associated factors among mothers attending hospitals in Hargeisa city, Somaliland, from January 2025 to March 2025. .

1.4.2 Specific objectives

- To determine the prevalence of exclusive breastfeeding among mothers attending hospitals in Hargeisa city, Somaliland.
- To identify factors associated with exclusive breastfeeding practices among mothers attending hospitals in Hargeisa city, Somaliland.

2. LITERATURE REVIEW

2.1 prevalence of exclusive breast feeding

The proportion of exclusively breastfed children remains low in many low- and middle-income countries (LMICs), where most child deaths attributed to suboptimal breastfeeding occur. A geospatial analysis of EBF prevalence estimates from 2000 to 2018 in 94 LMICs revealed that the majority of LMICs are unlikely to meet the World Health Organization's (WHO) Global Nutrition Target (WHO GNT) of 70% EBF prevalence by 2030. While six LMICs are projected to meet the WHO GNT of 70% EBF prevalence at a national scale, only three are predicted to meet the target in all their district-level units by 2030 (Bhattacharjee et al. 2021).

According to the cross-sectional study done in Addis Ababa the prevalence of exclusive breastfeeding practice was 168 (44.2%); this was lower than the value by Ethiopian Demographic and Health Surveys 2005, which was 49% it indicates that 52.6% of the mothers started breastfeeding their newborn child within 1 hour. The rest (30%) started breastfeeding after 1 hour (Elyas et al. 2017).

In Somaliland, a community cross-sectional study done in Hargeisa, found that the prevalence of exclusive breastfeeding was 68% (Ismail Mohamed et al. 2020a);in contrast, a study done In Uganda showed that the prevalence of EBF was 42.8%, it found that EBF increased slightly from 85.7% at zero months to 87.2% at one month and then rapidly dropped to its lowest (24.6%) among five months old children (Id et al. 2020)

2.2 Factors associated with exclusive breast feeding

2.2.1. Socio demographic related factors.

Monthly income of the household is one of determinant factors of exclusive breastfeeding practices among mothers as a cross-sectional study in China showed that High household income mothers had a higher likelihood of EBF and this is because those mothers in the families with adequate amount of income do not need to go to work during lactation (Ruan *et al.*, 2019), similar with a community cross-sectional study done in In Burao ,Somaliland found Mothers

with low house hold income are less likely to exclusively breastfeed their children than mothers with high income (Jama et al. 2020).

The age of mothers can contribute the exclusive breastfeeding practice as study done in Canadian women found that young age at first pregnancy decreased the likelihood of 6-month exclusive breastfeeding, with a similar result found a study done in Malawi that an adolescent mother is considered less likely to continue EBF in comparison to older women (Salim, 2020), in line with a community based cross-sectional study done in Harar , Ethiopia showed that that the women in the age group of 26–40 were about 2 times more likely to exclusive breast feed their infants than those in the age group of 18–25 (Mulatu Dibisa and Sintayehu 2020).

As the age of the child increases, the rate of EBF decreases significantly, as a cross-sectional study done in Malawi found that EBF declines with increasing the child's age. The reason for this trend has mostly been that mothers perceive that breast milk alone would not be enough for the perceived demands of the growing child (Salim, 2020). This finding was in conformity with a study done among Cambodian mothers that revealed infants between 2-3 and 4-5 months old were 51% and 75% less likely to be exclusively breastfed than those under one month, respectively. This means that the older the child was, the less likely they were exclusively breastfed (Um *et al.*, 2020).

Maternal level of education has been informed to be associated with exclusive breast feeding, as a descriptive cross-sectional study done in Galkayo, Somalia showed Infants whose mothers had formal education were more likely to be exclusively breastfed ((Mohamed et al. 2019).in contrast a sub-Saharan Africa: a secondary analysis of Demographic and Health Surveys from 2015 to 2019 (Wako et al. 2022)showed a lower rate of EIBF and EBF among mothers with higher educational status.

In 2020, a community based cross-sectional study done in West Shoa Zone, Oromia, Ethiopia showed that marital status is one of sociodemographic associated factors on EBF and indicates that married mothers were more than two times likely to exclusively breastfed than single mothers (Mamo *et al.*, 2020), another study done in Kwango District, also indicates that marital status is strongly associated with EBF(Dhakal et al. 2017).

A study done (ECOWAS) countries (Agho et al. 2019)found that there an association between sex of infants and practicing of EBF and it showed that female infants were higher EBF rates than male infants (Agho *et al.*, 2019), in a contrast a cross sectional study done in Burao district, Somaliland showed that the Sex of the child was significantly associated with exclusive breastfeeding in this study. A female child was 52% less likely to be exclusively breastfeed than male child (Jama *et al.*, 2020).

Analytical with cross-sectional study done in the working area of simpang baru primary health center of pekanbaru city showed that there was no relationship between mother's occupation and exclusive breastfeeding (Susanti and Deslidel 2021),in a contrast a comparative cross-sectional study done in the Fafan zone, Somali regional state of Ethiopia showed unemployed mothers were twenty-five times more likely to exclusively breastfeed their infants as compared to those employed mothers (Tadesse *et al.*, 2019).

2.2.2 Obstetrics and medical related factors

Mode of delivery is among the factors that play an important role in breastfeeding practices. C/S can negatively affect the physiology of lactation and cause adverse events that hinder maternal contact with the neonate, as evidence from the 2013 Turkey demographic and health survey showed that the women who had undergone C/S had a higher risk of non-EIBF than those who had undergone normal delivery (Erbaydar 2020). In contrast a descriptive cross-sectional study done in Galkayo, Somalia showed the mode of delivery did not show significant with exclusive breastfeeding (Mohamed et al. 2019).

A community based cross sectional study in Bahir Dar city, Northwest Ethiopia showed that the participants breast complication was significant associated with EBF and mothers without breast complications were to practice exclusive breastfeeding about four times more likely compared with participants who had breast complication (Ayalew 2020). This finding is in line with a study done in Hawasa which reported that the breast complications had interfered with breastfeeding (Adugna et al. 2017),These findings suggest that in the absence of breast complication, mothers could continue to practice exclusive breastfeeding.

2.2.3 Health service utilization factors

A cross sectional study done in Hawassa, an urban setting, Ethiopia indicates mothers who delivered at health facilities practiced EBF more likely than mothers who delivered at home (Adugna *et al.*, 2017) with in line a study done in Galkayo showed that Women who delivered at a health facility practiced exclusive breastfeeding more compared to those who delivered at home because they receiving a counselling from health service providers (Mohamed et al. 2019).

A study done Economic Community of West African States"(ECOWAS) Countries Mothers who had one or more ANC visits to the health institution prior to childbirth showed higher odds of EBF practice compared to those who did not attend any ANC visits (Agho *et al.*, 2019), This is consistent with the findings of a study done in Hargeisa showed Those mothers who get antenatal care service were 25.4 times more likely to breastfed their children exclusively than those who didn't get ANC service and they argued that this could be a reason for that, the mothers who attend ANC service had enough medical and nutritional monitoring during their visits to ANC service (Ismail Mohamed et al. 2020a).

2.2.4 Psychosocial factors

A study done in Indonesia showed that Psychological factors, including maternal confidence in sufficient breast milk production and support from husband/family had a statistically significant correlation with successful exclusive breastfeeding monthly for the first 6 months also this study revealed maternal feelings(stressed, confused, worried ,afraid or depressed) didn't not significantly correlate to the success of exclusive breastfeeding (Dwinanda et al. 2018), with similar findings a community based cross-sectional study done in Burao district, Somaliland, indicates that support from a husband was associated with exclusive breastfeeding practice. Mothers who did not get support from their family, especially their husbands were less likely to exclusively breastfeed their children than those who got support from their family/husband (Jama *et al.*, 2020).

2.2.5 Knowledge and attitude factors

A cross sectional study done in Enderta woreda, Tigray, revealed that, almost 77% have sufficient knowledge on the benefits of breastfeeding for its prevention for pregnancy(Teka et al. 2015a), in line with a study done in Harar 68.46% had good knowledge of EBF (Mulatu

Dibisa and Sintayehu 2020.In contrast study done in Burao district, Somaliland showed more than half of the mothers 265 (57.1%) had poor knowledge about exclusive breastfeeding (Jama *et al.*, 2020).

Cultural practices have been found to play a role in delayed initiation of breast feeding, For instance, in some settings in Nigeria, there is the belief that colostrum is ‘dirty milk’ and therefore harmful to the baby also believed that after delivery the mother should rest and clean up and some rituals and prayers have to be performed before breast feeding commences (Issaka and Agho 2017).

2. 3 Conceptual frame-work

The conceptual frame wok shows the association of the independent variables such as socio-demographic factors, health service utilization factors, Obstetrics and medical related factors and psychosocial Factors with the outcome variables (EBF).

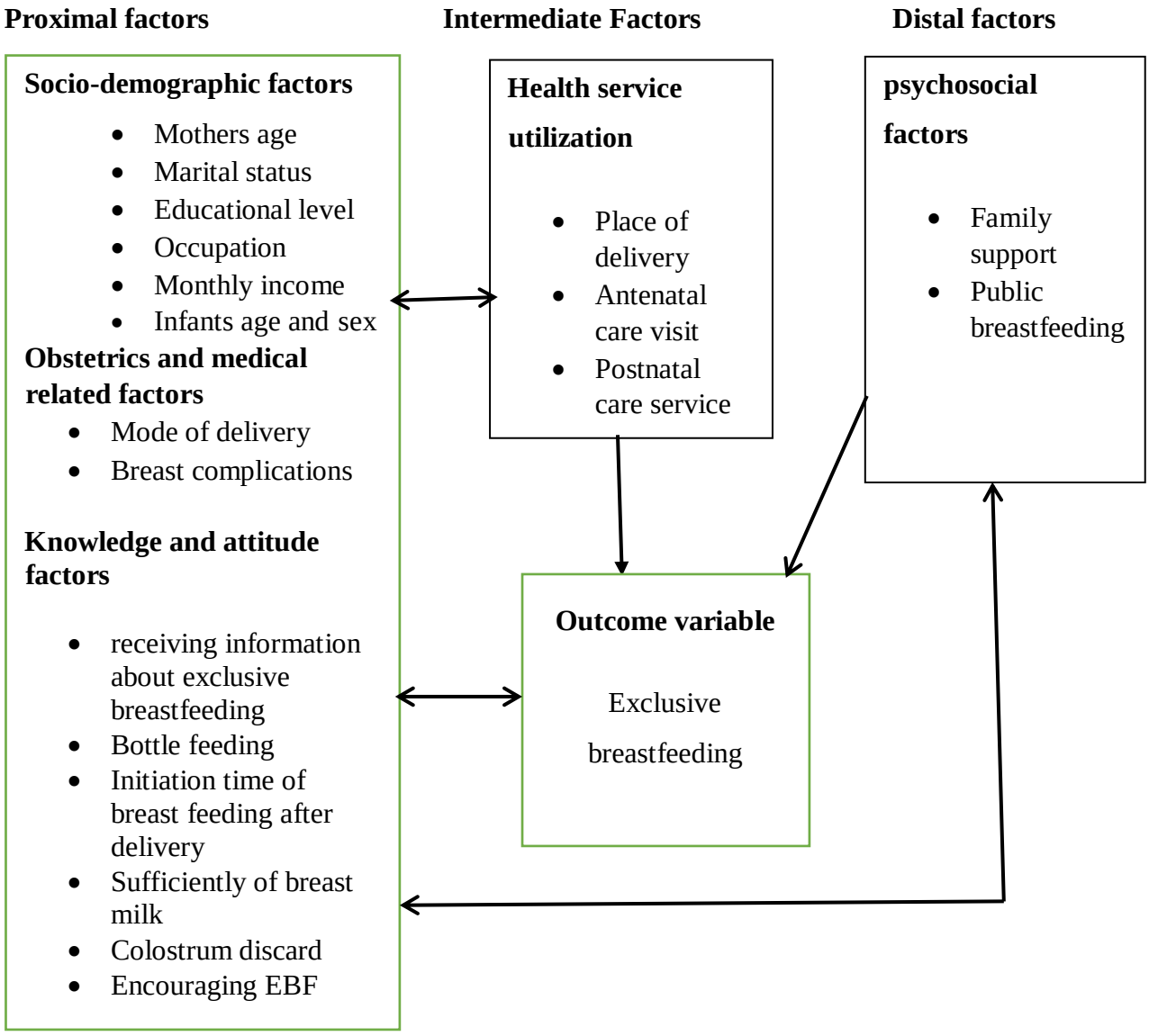

Figure *1:* - Conceptual frame on exclusive breast feeding and associated factors in Hargeisa, Somaliland 2025.

Adopted sources from (Ismail Mohamed et al. 2020), (Mohamed et al. 2019),(Salim, 2020), (Mulatu Dibisa and Sintayehu 2020).

3. METHODS AND MATERIALS

3.1 Study area and period.

The study was conducted on mothers with children aged 0–6 months who are attending in a selected hospitals and Health centers (Hargeisa public hospital, Edna Adan hospital, Kaah hospital, and Gargaar hospital) in Hargeisa, Somaliland. Hargeisa is the capital city of Somaliland and is located in the northern part of Somalia. Hargeisa is located at latitude 9°.5624" and longitude 44°.177" and is 1,334 meters (4,377 feet) above sea level with a population of approximately 1.5 million individuals (Ismail Mohamed, Tegene, and Jonah, 2020), The city has one public hospital and nine private hospitals , among these hospitals Six hospitals work in maternal and child health, this study was done in randomly selected one public hospital (Hargeisa Group Hospital) and three private hospitals (Kaah hospital, Gargaar hospital and Edna Adan hospital). The study was conducted using a facility-based cross-sectional descriptive study design from January 2024 to March 2025.

Hargeisa Group Hospital consists of six main departments, almost thirty service sections or units, and has nearly 700 employees in varied work-related professions, with categories including specialized personnel, administrative support staff, and auxiliaries as well. HGH envisions that all people in Somaliland enjoy the best possible health status and endeavors to ensure the provision of essential health services for all people in Somaliland. HGH averagely receives.

The Edna Adan Maternity and Teaching Hospital in Hargeisa was established in 2002 to provide quality medical services for women and children. The hospital has expanded to provide care for all members of the community, and as the only referral and teaching hospital in Hargeisa, it serves a vital role in the training of midwives, nurses, laboratory technicians, and pharmacists.

Kaah Community Hospital has been established in 1998 in Hargeisa as a private health care institution—the first of its kind provides key essential and specialized emergency lifesaving

health care services to the Somaliland community with a focus on obstetrics and gynecology in general and pediatrics, along with neonatal, infant, and childcare at large.

Gargaar Multispecialty Hospital (GMH) is a community-based hospital found in March 2009. GMH brings together high-quality services and qualified, experienced professionals, as well as competent, dedicated and educated young hands to the health service provision. Gargaar Hospital provides a range of Outpatient services including: GYN / OBS, Surgical, Pediatric, Orthopedic, Medical, Ophthalmology and have 24/7 Emergency Services.

3.2 Study design

A facility-based cross-sectional study design was used.

3.3 Population:

3.3.1 Source population

The source population was mothers who have children under 6 months of age and attending pediatric outpatient department (OPD) and EPI unit in the hospitals in Hargeisa, Somaliland.

3.3.2. Study population

The study population was mothers who have children under 6 months who were attending a pediatric outpatient department (OPD) and EPI unit in a selected hospitals in Hargeisa, Somaliland.

3.4 Eligibility Criteria

3.4.1 Inclusion criteria

- Mothers with children under six months of age.
- Mothers who attended the pediatric outpatient department (OPD) and infant immunization service at the EPI unit in selected hospitals.

3.4.2 Exclusion Criteria

- Mothers who are not biological mothers of the infant were excluded.
- Mothers who had difficulty responding to the interview because of hearing impairment and other communication problems were excluded from this study.
- Mothers who have repeated visits during the study period were excluded from the study.

3.5 Sample size determination

Sample size was determined using single population proportion formula [n = [**(Za/2)2*P (1-P)]/d2]** by assuming 95% confidence level of Zα/2 = 1.96, the proportion of women who exclusively breastfed to be 56% (proportion of breast feeding in Somaliland according to UNICEF report 2016 (Republic, 2017), 4% margin of error (d). Based on the above formula the calculated sample size is 591. Considering the 10% non-response rate, the final sample size was 591÷ 15 + 591 = 630

Predictors	Percent of Outcome		Sample size including 10% non-response rate	References
	Exposed	Unexposed		
ANC visits	76.5	59.4	279	(Ayalew 2020b)
Husband support	32.5	14.2	102	(Jama *et al*, 2020)
Occupation status	12.5	34.7	104	(Susant I and Deslide l, 2021)

Table 1 :-summary of sample size calculation for associated factors on exclusive breastfeeding among mothers having children 0 – 6 months of age in Hargeisa city, Somaliland.

As we can see from the sample size calculations for the prevalence of exclusive breast feeding and factors associated, the largest possible sample size is 630, so the sample size of 630 was used in this study.

3.6 Sampling procedure and techniques

Multistage sampling techniques was used, there are 10 hospitals in Hargeisa city, so four hospitals was selected through simple random sampling. On average, 3,700 mothers were estimated to visit the selected health facilities in the last two months for antenatal and postnatal care services, therefore, a sample was taken from this population. A systematic random sampling was used to select 630 study participants. To select the required sample size, the total sample size was proportionally allocated between the selected health facilities by calculating a formula

$nj = \frac{n}{N} * Nj$ and then subjects were selected at random intervals from the sampling frame by calculating n = N/n and This was done every 6th interval until the required sample size is reached. The first study subject was chosen at random, and subsequent subjects was chosen every six intervals based on the sampling interval. Finally, 630 study participants was included.

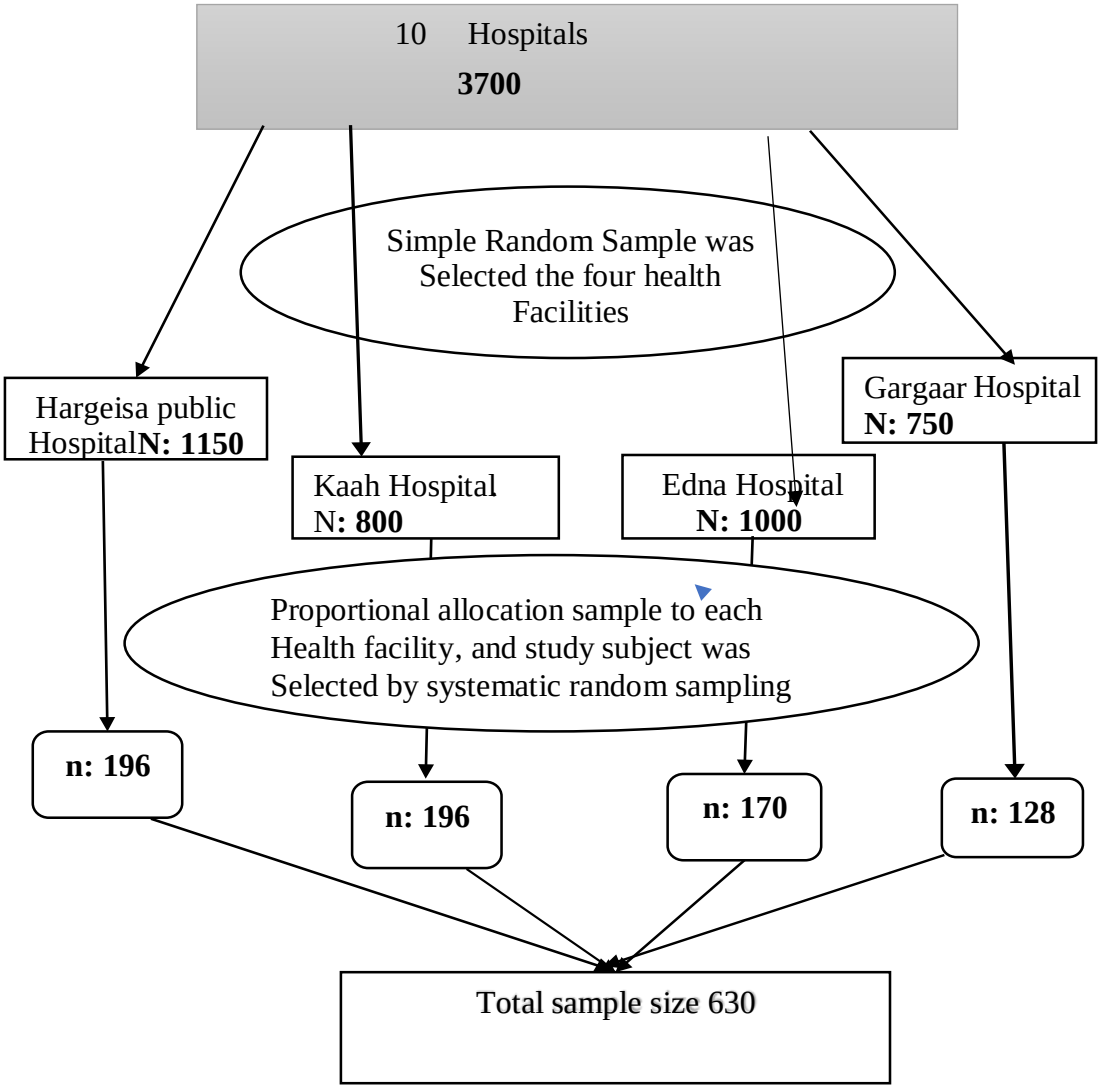

Figure 2: Schematic presentation of sampling procedure of a study on prevalence of Exclusive Breastfeeding and its associated factors among mothers attending hospitals in Hargeisa city, Somaliland, 2025.

3.7 Data collection method

3.7.1 Data collection instruments

The data was collected using structured interviewer administered questionnaire which is adopted and modified from different literatures (Ismail Mohamed, Tegene and Jonah, 2020) (Adugna *et al.*, 2017) (Mohamed, Mohamud and Mohamud, 2019) (The Somaliland

Health and Demographic Survey 2020), The questionnaire consisted of sociodemographic factors, exclusive breastfeeding information, obstetric and health service utilization related factors, psychosocial factors and knowledge and attitude of the mother towards EBF.

3.7.2 Data collectors and supervisors

Three female diploma nurses and one female bachelor's degree in nutrition and food science with previous experience in data collection was recruited as data collectors and supervisors.

3.7.3 Procedure of data collection)

The data was collected from mothers who had children under six months during the study period and who brough their child to the selected facilities. They were interviewed to determine if they practice exclusive breastfeeding or not; a woman with a child within the age range of six months and below were considered during the process of generating the variable "exclusive breastfeeding," and the interview was around 25 minutes for each participant.

3.8 Study variables

3.8.1 Dependent variable

- Exclusive breast-feeding practice.

3.8.2 Independent variable

- **Socio demographic and economic characteristics of mothers and infants**
  - Mother’s age
  - Marital status
  - Educational level
  - Occupation
  - Monthly income
  - Infants age and sex
- **Obstetrics and medical related factors**
  - Mode of delivery
  - Breast complication

- **Health service-related factors**
  - Place of Delivery
  - Antenatal care services
  - Post-natal service
- **psychosocial factors**
  - family/husband support
  - Public feeding
- knowledge and attitude factors
  - ever heard exclusive breastfeeding
  - bottle feeding
  - breast milk sufficiency
  - frequency sucking
  - colostrum discard
  - Encouraging EBF

3.9 Operational definition

Exclusive breastfeeding: Applies to the infants who received only breast milk from his/her mother, no other liquids, or solids, except medications in the past 24 hours prior to the interview for the babies who are less than or equal to 6 months. (*Indicators for assessing infant and young child feeding practices Part 1 Definitions* [no date])

ANC: antenatal care coverage (at least one visit) is the percentage of women aged 15 to 49 with a live birth in a given period that received antenatal care provided by skilled health personnel (doctor, nurse, or midwife) at least once during pregnancy.(Maternal-and-Newborn-Health-Coverage-Database-November-2024. [no date])

PNC: The mother and newborn received postnatal care immediately after the birth of the baby extending up to six weeks (42 days).(*WHO recommendations on maternal and newborn care for a positive postnatal experience* 2022)

Initiation of breastfeeding: Proportion of children born in the last 24 months who were put to the breast within one hour of birth. (*Indicators for assessing infant and young child feeding practices Part 1 Definitions* [no date])

Pre-lacteal feeding: administration of any substances other than breast milk to newborn babies during the first 3 days after birth.(Adem et al. 2021)

Modes of delivery: refer to either the vaginal delivery or a delivery by surgical intervention and Caesarean delivery increased the likelihood of delayed breastfeeding initiation and increased pre-lacteal feeding.(Fadl and Haile 2021)

Family support: if the mother reports receiving encouragement and support from her family (mother, Husband, mother-in-law, Grandmother/father) who provides assistance during breastfeeding(Emidio et al. 2020)

Frequency of breastfeeding: Measured according to the number of times the mother breastfed her infant in the last 24 hours.(Galipeau et al. 2012)

Breast complications the mother had any discomfort and breast pain during breastfeeding that related to breast engorgement, plugged ducts, breast infection, breast abscess, and nipple fissures.(Boskabadi et al. 2014)

Colostrum discarded: the mother discarded the first thick yellow milk secreted by the breast in the last few weeks' pregnancy and the first two to three days after childbirth, until lactation is established. (Tsegay et al. 2013).

Sufficiency of breastmilk: Perceived breast milk sufficiency is the mother's belief that her breast milk is adequate/ inadequate in amount or nutritional quality to meet her infant's needs.(Namyalo et al. 2023)

Ever heard on EBF: receiving information on benefits and practices of EBF in reliable sources (Sabo et al. 2023)

Public feeding: the perception of the mother in breastfeeding when she is sitting in a room with visitors who are not usual members of her home. It can also be outside your home, such as your workplace, or in public transport.(Coomson and Aryeetey 2018)

bottle feeding: the perception of the danger of regular use of a bottle feeding to the infants.(Indicators for assessing infant and young child feeding practices Part 1 Definitions [nd].

Knowledge of the mothers: refers the awareness, benefits, and practices on exclusive breastfeeding (EBF) and a set of questions developed on awareness, benefits, and practices.

Correct answers earned a score of 1, incorrect answers 0. Total scores were then classified as "good" or "poor" based on standards from prior research (Hasan et al. 2021)**,** (Sabo et al. 2023)**.**

attitude of mothers: refers to mother's feelings, beliefs, and values towards exclusive breastfeeding and set of questions developed based on perception of mother on EBF, mothers indicated their agreement with yes agreement scored 1, disagreement scored 0. Based on calculated total scores, the attitudes were classified as "positive" or "negative (Sabo et al. 2023), (Hasan et al. 2021).

3.10 Data Quality Control

To keep quality under control, regular supervision and follow-up were done by the principal investigator, and the completeness and consistency of the data was checked daily. The principal investigator trained the data collectors in one day on the purpose of the study, how to handle questionnaires, how to conduct data collection in a satisfactory manner, and how to ask questions and record responses. First, the English version of the questionnaire was prepared, then it was translated to the local language (Somali) and back to English to check for consistency and accuracy. During the procedure, confidentiality was considered before and after data collection. Five percent (5%) of the questionnaire were tested one week before the actual data collection at New Hargeisa health center and Daryeel community hospital, and unclear questions and ambiguous words were removed after the pretest tool to ensure validity and reliability.

3.11 Data Processing and Analysis

Data was entered using Epi Data version 3.1 and exported to SPSS version 23 for analysis. Descriptive summary statistics such as frequencies and percentages. The relationship between dependent(dichotomous) and independent variables were tested by using bivariable logistic regression with 95% CI and P value < 0.025 and multivariable logistic regression to see the relationship between all variables that are significant in bivariate logistic regression, Multivariable logistic regression was used to control confounding variables. An adjusted odds ratio (AOR) with a 95% confidence interval was estimated to investigate the association between the dependent and independent variables. In the multivariable regression model, a p-value of < 0.05 was used as a measure of statistical significance. Those variables with a p-value of < 0.05 were declared as significant and the result was presented as tables. Multicollinearity

was checked by variance inflation factor, respectively, the goodness of model fit for this study was checked by Hosmer and Lemeshow's goodness of fit test (0.06).

3.12 Ethical consideration

A formal letter of ethical clearance and approval was obtained from Haramaya University Ethical Review Committee, College of Health and Medical Sciences and official letter was sent to respective hospitals, and a letter of permission was obtained from the medical director's office to communicate with relevant bodies at the hospital. Informed, voluntary written and signed consent was obtained from study participants in their local language after explaining the purpose of the study, the potential risks and benefits of participating in the study, and the right to withdraw from the study at any time of the data collection. confidentiality was maintained.

3.13 Plans for dissemination

Findings from this study will be presented on the master's thesis defense program, and they will be given to Haramaya University College of Medical and Public Health, the Ministry of Health in the Republic of Somaliland, the Hargeisa Group Hospital, other local health institutions, and other responsible bodies through hard copies that may help them for decision-making and other purposes. In addition, high efforts will be made to publish the findings in peer-reviewed scientific journals so that it will be easily available for the community in general.

4. RESULTS

4.1 Socio-demographic characteristics of mothers and their children

A total of 630 mothers participated in this study. Regarding the profile of the mother's age group, 201 (31.9%) of them were in the age group of 15-25, and 41(38.3%) were age >36 years and above. Majority of mothers, 455 (72.2%) were married, and 115 (18.3%) were divorced. 177 (28.1%) had no formal education, while 152 (24.1%) had primary level. Nearly half of the mothers, 296 (47.2%), were domestic services (Housewives), while 132(20.9%) of mothers were working in sales and services. In terms of income for the mothers, 52 (8.3%) were living with an income between 1-100 USD, while 237 (37.6%) were living with an income above 300 USD. **Table 2**

Table 2: Socio-demographic characteristics of mothers attending in a selected hospitals in Hargeisa city, Somaliland ,2025 (n=630*)*

Variable name	Category	Frequency	Percentage %
Marital status	married	455	72.2%
	divorced	115	18.3%
	widowed	60	9.5%
Educational status of mother	no education	177	28.1%
	primary level	152	24.1%
	secondary level	172	27.3%
	higher level	129	20.5%
Educational status of father	no education	56	8.9%
	primary level	115	18.3%
	secondary level	237	37.5%
	higher level	222	35.1%
Maternal occupation	professional/technical /managerial	86	13.6%
	clerical	40	6.3%
	sales and services	132	20.9%
	skilled manual	64	10.1%
	unskilled manual	12	1.9%
	domestic service	296	47.2%
Monthly income of the family	1-100	52	8.3%
	101-200	141	22.4%
	201-300	200	31.7%
	above 300	237	37.6%

Child profile

The sex distribution of the children was 363, (57.6%) children were female while 267, (42.4%) of children were male and regarding age, 202, (32.05%) of children were 0 up to 1.9 month, while 196, (31.1), were 2 up to 3.9 month, and the remaining 232, (36.8) were 4 up to 5.9 months**. Table 3**

Table 3: **characteristics of the child aged <6 months**

Variable name	Category	Frequency	Percentage
	female	363	57.6%
Sex of the child	male	267	42.4%
Age of the child	0 up to 1.9	202	32.1%
	2 up to 3.9	196	31.1%

	4 up to 5.9	232	36.8%

4.2: Health service utilization related factors

A total of 303(48.2%) Mothers visited health institutions for ANC, and more than half, 163 (45.1%), were counseled on breastfeeding during ANC visits. Nearly 583 (92.5%) of mothers were delivered at health institutions and 411(65.2%) received postnatal services, while only 241 counselled about exclusive breastfeeding. **Table 4**

Table 4: **Health service utilization-related factors among mothers attending in a selected hospitals in Hargeisa city, Somaliland,** ***2025 (n=630)***

Variable name	Category	Frequency	Percentage %
ANC visit	yes	303	48.2%
	no	326	51.8%
Number of visits	<1	136	44.9%
	2-3	167	55.1%
Place of delivery	Health facility	583	92.5%
	Home	47	7.5%
Postnatal care service	yes	411	65.2%
	no	219	34.8%
Counselling about EBF?	yes	241	58.5%
	no	170	41.5%

4.3 Obstetrics and medical-related factors

Considering the mode of delivery, 375 (59.5%) were normally delivered, while 255 (40.5%) **Table 5**

Table 5: Obstetrics and medical-related factors among mothers attending in a selected hospitals in Hargeisa city, Somaliland. 2025 (n=630)

Variable name	Category	Frequency	Percentage %
Mode of delivery	through normal(vaginal)	375	59.5%
	by oppression(C-section)	255	40.5%
Breast complication	Yes	182	28.9%
	No	448	71.1%

effect of breast complication	Reduced milk production	59	32.4%
	interfered with EBF's early introduction of other solid and semi-solid foods	44	24.2%
	can't resist the pain, so I avoid the baby being suckled.	79	43.4%

4.4 Psychosocial factors

This table shows that 341, 54.1% of mothers got support from their family during breastfeeding, However, only 147 (43.1%) got support from their husbands. **Table 6**

Table 6: Psychosocial factors among mothers attending in a selected hospitals in Hargeisa City, Somaliland. 2025 (n=630)

Variable name	Category	Frequency	Percentage %
Family support during breastfeeding	Yes	341	54.1%
	No	289	45.9%
Who support during breastfeeding	Husband	147	43.1%
	mother-in-law	100	29.3%
	Grandmom/dad	94	27.6%

4.5: Knowledge and attitude factors

The table showed that the majority of mothers, 337, 53.5%) had heard about exclusive breastfeeding, and the most cited source of information was health institutions 150, (44.1%). A total of 330, (52.4%) believed that frequent sucking helps milk production.

Regarding the attitude of mothers, 449 (59.4%) of mothers feel uncomfortable about public feeding, 305 (48.4%) believe that breast milk is insufficient for the child, yet most mothers, 493 (78.3%), encourage exclusive breastfeeding. **Table7**

Table 7 Knowledge and Attitude factors among mothers attending in a selected hospitals in Hargeisa City, Somaliland. 2025 (n=630

Variable name	Category	Frequency	Percentage %
Knowledge score	good	240	38%

	poor	390	62%%
Attitude score	positive	256	40.6%
	Negative	374	59.4%

4.6 prevalence of exclusive breastfeeding practices

The study showed that the prevalence of exclusive breastfeeding was 54% (339) (95% CI 50 %, 58%) and 335, (53.2%) of mothers-initiated breast feeding immediately, 310 (49.2%) had pre-lacteal feeding, were 153, (49.5%) provide Infant formula/ animal milk as additional liquid, Regarding the frequency of breast-feeding 318, (50.7%) breasted <8 times for the past 24 hrs.

Figure 3

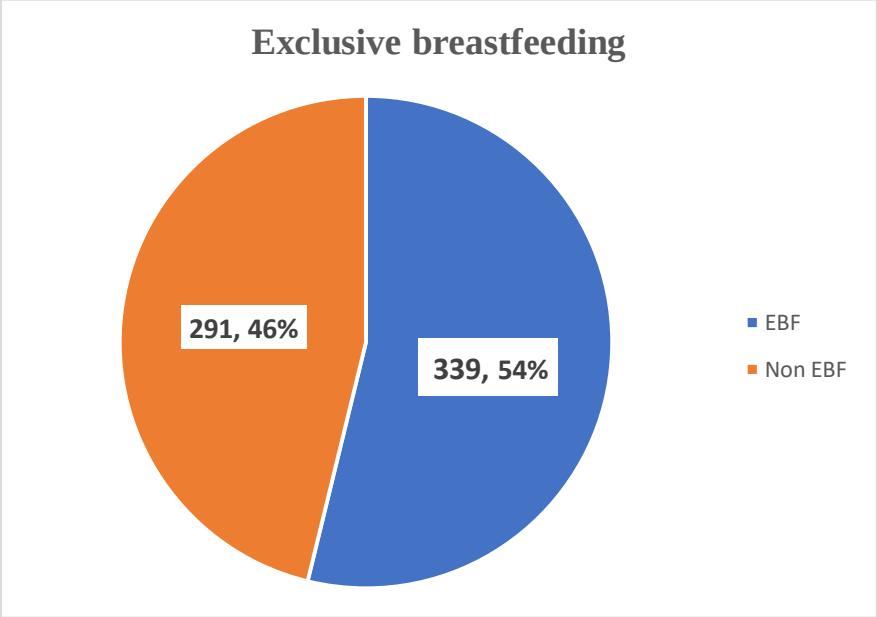

Figure 3: prevalence of IBF among mothers with infants aged six months in a selected Hospitals in Hargeisa city, Somaliland,2025 (n=630)

4.7 Factors associated with exclusive breastfeeding

To identify which factors, have association with exclusive breastfeeding and which factors are not, initially, Bivariate analysis was used to test their contribution of independent variables to the dependent variable (Exclusive breastfeeding). Variables which were associated in the bivariable analysis with P-value < 0.025 were the child's age, initiation of breastfeeding, frequency of breastfeeding, ANC Visit, mode of delivery, breast complication, family support,

good knowledge and positive attitude. Furthermore, significantly associated variables were entered into the multivariable logistic regression, and initiation of breastfeeding, frequency of breastfeeding, ANC Visit, mode of delivery, family support, good knowledge and positive attitude remained associated with exclusive breastfeeding after controlling confounding factors.

Mothers who delayed initiation of breastfeeding after hours and days were 57%, 68% less likely to practice exclusive breastfeeding compared to mothers who started breastfeeding immediately after birth (AOR: 0.43, 95% CI: 0.27-0.68), (AOR: 0.32, 95% CI: (0.18-0.59).

Mothers who fed their infants more than 8 times a day were 6.6 times more likely to practice exclusive breastfeeding than mothers who fed their infants less than 8 times a day (AOR =6.6, 95% CI: 4.24 – 10.18). Mothers who were having antenatal care follow-up were 2 times more likely to practice exclusive breastfeeding than mothers who didn't have (AOR= 2.12% CI: 1.37-3.29). Mothers who had a normal delivery were 1.63 times more likely to practice exclusive breastfeeding than those who had a C-section (AOR=1.63, 95% CI: 1.05-2.52). Mothers who got family support were 1.62 times more likely to practice EBF than others (1.62(1.07-2.44).

Mothers who have good knowledge score were 2.46 times more likely to practice EBF than mothers with a poor knowledge score (AOR=2.46, 95% CI:1.58-3.83). Mothers who have positive attitude were 3 times more likely to practice exclusive breastfeeding than mothers who have a negative attitude (AOR=3, 95% CI: 2.13, 4.21). **Table 8**

***Table 8*: Bivariate and multivariate logistic regression analysis for factors associated with exclusive breastfeeding among mothers attending** in a selected hospitals in Hargeisa City, Somaliland **2025 (n=630)**

		Exclusive breastfeeding					
Study variables	**Category**	**yes**	**No**	**Bivariate analysis**		**Multivariate analysis**	
				COR (95%CI)	**p-value**	**AOR (95%CI)**	**p-value**
Childs age	0 up to 1.9 2 up to 3.9 4 up to 5.9	131(64.9%) 86(43.9%) 122(52.6%	71(35.1%) 110(56.1) 110(47.4%)	1 0.42(0.283-0.635) 0.60(0.408-0.885)	 0.000 0.010	1 0.62(0.37-1.05) 0.97(0.58-1.61))	 0.078 0.892

Initiation of breastfeeding	Immediate **After hrs.** **After days**	234(69.9%) **74(37.8)** **31(31.3%)**	101(30.1%) **122(52.2%)** **68(68.7%)**	1 **0.26(0.18-0.38)** **0.20(0.12-0.32)**	**0.000** **0.276**	1 **0.43(0.27-0.68)** **0.32(0.18-0.59)**	**0.000** **0.000**
Frequency of breastfeeding	<8 **>8**	90(28.1%) **249(80.3%)**	230(71.9% **61(19.7%)**	1 **10.4(7.20-15.11)**	**0.000**	1 **6.6(4.24-10.18)**	**0.000**
ANC Visit	Yes No	**224(73.9%)** 114(35%)	**79(26.1%)** 212(65%)	**5.27(3.7-7.4)** 1	**0.000**	**2.12(1.37-3.29)** 1	**0.001**
Mode of delivery	Normal Operation	**236(62.9%)** 103(40.4%)	**139(37.2%)** 152(59.6%)	**2.52(1.81-3.47)** 1	**0.000**	**1.63(1.05-2.52)** 1	**0.028**
Breast complication	Yes No	70(38.5%) 269(60%)	112(61.5%) 179(40%)	0.416 (0.29-0.59)) 1	0.000	0.98(0.62-1.57) 1	0.939
Family support	Yes No	**208(61%)** 131(45.3)	**133(39)** 158(54.7%)	**1.89(1.37-2.59)** 1	**0.000**	**1.62(1.07-2.44)** 1	**0.02**
Knowledge score	Good Poor	**173(72.1%)** 166(42.6%)	**67(27.9%)** 224(57.4%)	**3.48(2.47-4.93)** 1	**0.000**	**2.46(1.58-3.83)**	**0.000**

Attitude score	Positive Negative	**184(71.9%)** 155(41.4%)	**72(28.1%)** 219(58.6%)	**3.61(2.57-5.08)** 1	**0.000**	**3.0 (2.13, 4.21)**	**0.004**

***Keywords**: 1=Reference Category, COR=Crude Odds Ratio, AOR= Adjusted Odds Ratio CI=Confidence Interval*

5. DISCUSSION

This study assessed the prevalence of exclusive breastfeeding and its associated factors among mothers with infants less than six months of age who attended in a selected Hospitals in Hargeisa city, Somaliland. The prevalence of exclusive breastfeeding in this study was 54%. Among variables in multivariable analysis, initiation of breastfeeding, frequency of breastfeeding, ANC Visit, mode of delivery, family support, good knowledge, and positive attitude were significantly associated with practice of exclusive breastfeeding.

This result was closely in line with a study done in Chereti district, Somali region, Ethiopia 52**%**.(Shitie A et al,2022) and study done in Bahir Dar city, Northwest Ethiopia, 57.3%(Ayalew 2020), in Hawassa 60% (Adugna et al. 2017), in Malawi 61.4% (Salim 2020). However, this study was lower than study done in dire Dawa 81.1% (Desalew A, et al,2020), Afar region 78.3% (Tsegaye et al. 2019). and Tigray north Ethiopia **70%** (Teka et al. 2015b)**.** On the other hand, the prevalence of this study was significantly higher than the prevalence of a study done 20.47% in Burao district, Somaliland (Jama *et al.*, 2020). in peninsular Malaysia 43.1% (Tan 2011) in Harar, Ethiopia 45.8%(Mulatu Dibisa and Sintayehu 2020a), in Kampala, Uganda 42.8% (Nabunya et al., 2020), The possible justifications might be due to the difference in health care coverage and accessibility to health services, difference in the sample size of the study and study period, and design used by the researchers, socio-cultural, economic, and health care service utilization differences could have also brough these differences in a nationwide as well as globally.

The findings in this study showed that the mothers who delayed the initiation of breastfeeding for after hours and days were less likely to practice exclusive breastfeeding compared to mothers who started breastfeeding immediately after birth and this result aligns with a study done in Harar, Ethiopia (Mulatu Dibisa and Sintayehu 2020), Fafan Zone (Tadesse et al. 2019), Somali region(Shitie et al. 2022b) , Dubti District (Nur et al. 2019), Afar region(Nur et al., n.d.), and this implies that the early initiation of breastfeeding can enhance the mother-infant bond, encourage the more frequent feeding, which increases maternal milk production, whereas delayed initiation risks formula supplementation, latch issues, and compromised milk supply.

In this study, the mothers who had antenatal care visits were more likely to practice exclusive breastfeeding than mothers who didn't have. This result was consistent with studies done in Hargeisa(Ismail Mohamed et al. 2020b), Bahir Dar (Ayalew T,2020),Jigjigs (Obsiye M,2019), this suggests that antenatal care follow-up could have a significant impact on practicing exclusive breastfeeding and mothers who visited the health facilities could get counseled and trained about exclusive breastfeeding, previous studies demonstrated that health care professional support, breastfeeding education program, and good access to health care in the antenatal period were facilitators of exclusive breastfeeding.

Frequency of breastfeeding more than 8 times was associated with exclusive breastfeeding, and this implies that the mothers who breastfed more than 8 times were more likely to practice exclusive breastfeeding, and this result was in line with a study done in Shiraz, Iran (Saki A et al,2013) found the importance of the distribution of frequency and duration of feeding, specifically the frequency of feeds more than 18 times during twenty-four hours was considered as extreme values.

This study indicates that the mothers who had a normal delivery were more likely to practice exclusive breastfeeding, which aligns with the findings of meta-analysis of Cohen et al. (2016), a study done in Hawassa, Ethiopia (Adugna et al. 2017), Turkey demographic and health survey (Erbaydar, 2020). This association may be due to vaginal births often allow for immediate skin-to-skin contact between mother and baby, facilitating early breastfeeding initiation, and trigger hormonal changes (such as the release of prolactin and oxytocin) that play a crucial role in preparing the mother's body for lactation and the effects of Caesarian section on maternal and fetal stress response and disrupted lactogenesis and leads unsuccessful first breastfeeding attempt.

Mothers who received family support were more likely to practice exclusive breastfeeding (EBF) than those who did not, and this was in line with a study conducted in Motta town, Ethiopia (Tewabe et al. 2017) , as well as a study conducted in the Somali region of Ethiopia(Shitie et al. 2022b). This could be because supportive families offer emotional encouragement, practical help, and advocacy. This enables mothers to focus on breastfeeding,

dispel misconceptions, reduce stress, and create a supportive environment conducive to successful breastfeeding

The findings of this study revealed that mothers who had good knowledge about exclusive breastfeeding were more likely to practice it than others. This finding is consistent with a study done in Dhaka, Bangladesh (Hasan et al. 2021), and a systematic review conducted in East Africa (Dukuzumuremyi et al. 2020).This association may be attributed to several factors, such as the knowledge empowers mothers to make informed decisions about infant feeding and provides a better understanding of the benefits of exclusive breastfeeding for both mother and child. Finally, knowledgeable mothers are better equipped to overcome common breastfeeding challenges, and access to accurate information can dispel myths and misconceptions on exclusive breastfeeding.

The study showed that mothers with a positive attitude were more likely to practice exclusive breastfeeding than those with a negative attitude. This finding is in line with a study conducted in Dhaka, Bangladesh (Hasan et al. 2021), and a systematic review and meta-analysis conducted in Ethiopia (Gebeyehu et al. 2023),which showed a strong positive association between positive attitude and the practice of exclusive breastfeeding. This suggests that Positive societal narratives reinforce breastfeeding as a normative and beneficial practice, encouraging mothers to embrace exclusive breastfeeding (EBF). Such support fosters a favourable attitude towards breastfeeding and enhances self-efficacy, making mothers feel capable and empowered in their breastfeeding journey.

6. STRENGTH AND LIMITATION

6.1 Strength

The strength of this study lies in the use of primary data. This study was conducted in Hargeisa city, and doing research in this area was crucial due to the limited research conducted on exclusive breastfeeding, so this will give a clue for further study to be done in this area.

6.2 Limitation

This study employs a cross-sectional, facility-based design, which provides only a snapshot of the prevalence of exclusive breastfeeding practices at a specific point in time. This approach limits our ability to establish causal relationships and may hinder to allow for generalization of the findings to the entire population.

7. CONCLUSION AND RECOMMENDATION

7.1 conclusion

The prevalence of this study of exclusive breastfeeding was 54%, which is pretty much higher than the global target of 2025, 50%, initiation of breastfeeding, frequency of breastfeeding, ANC visit, mode of delivery, good knowledge, positive attitude was statistically significant with exclusive breastfeeding in the final multivariate analysis.

7.2 Recommendations

Based on the findings of this study, the following recommendations are forwarded for different stakeholders.

To the Healthcare Workers

Healthcare workers should prioritize encouraging pregnant women to attend antenatal care follow-ups. This includes providing nutritional counselling and education about infant feeding, particularly exclusive breastfeeding, to enhance practice rates and meet the WHO recommended levels.

To the Health institutions

To effectively address the diverse impacts of C- sections on maternal and child health, which have been increasing in Somaliland and hindering EBF practice

To promote and provide counselling for women to give birth in healthcare facilities. Childbirths should be supervised by healthcare professionals to enhance efforts in educating women about the significance of breastfeeding, particularly exclusive breastfeeding (EBF).

To the other Researchers

Further studies need to be done in the area based on the limitations of this study and examine the specific variables associated with the practice of exclusive breastfeeding, and this will provide a deeper understanding of the challenges and help tailor interventions.

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9. APPENDICES

7.1 Information sheet and informed voluntary consent form for the head of hospitals

Introduction: Assalamu Alaikum, my name is **Fathia Mohamoud H. Hassan**; I am the principle investigator of the study to be conducted in this hospital; I am studying for my master's degree at Haramaya University, the college of health and medical science; and I kindly request that you give me your attention so that I can explain to you about the study and why your institution was selected as the study setting.

The study title is "**prevalence of Exclusive Breastfeeding and its Associated Factors among mothers attending hospitals in Hargeisa city, Somaliland.**"

Purpose of the study: The aim of this study is to write a thesis as a partial requirement for the fulfillment of a master's program for the principal investigator. Furthermore, the findings of this study will be crucial for hospitals, the Ministry of Health (MOH), and non-governmental organizations (NGOs) working in child survival programs in planning, implementing, and designing interventions to improve the practice of exclusive breastfeeding in the area and other similar circumstances, and they will provide more scientific knowledge about the importance of exclusive breastfeeding for both mothers and their infants.

Procedure and duration: The data would be collected from mothers who have children under six months during the study period and who will bring their children to the selected facilities, which include your hospital, which is randomly selected. The participants would be interviewed to determine if they practice exclusive breastfeeding or not; and the interview would take around 20 minutes for each participant.

Risk and Benefits: The risk of participating in this study is very minimal, only taking a few minutes of your time, and there is no direct payment for this study, but the findings from this research may reveal important information for the local health planners.

Confidentiality: - All the information you give **will be anonymous and confidential**, only used for the purposes of this research, and only accessible to me. No third parties will have access to any of the information you provide. The data will be collected, stored, and disposed of in a

secure manner. Information will be used in a way that will not allow you to be identified individually.

Rights: Participation in this study is entirely voluntary; you may participate or withdraw at any time; and you have the right to know the study's findings.

Contact address: if there are any questions or inquires at any time about the study or the procedures, please contact: Principal investigator: Fathia Mohamoud H. Hassan, phone: +252634198874, email: faatiya2020@gmail.com, as well as the contact information for the responsible Institutional Health Research Ethics Committee (IHRERC) at 0252662011 or P.O.Box 235, Harar, Ethiopia.

Declaration of informed voluntary consent: I have read or had read to me the participant information sheet; I understand the purpose of the research, the procedure, the risks and benefits, the confidentiality, the rights of participation, and the contact information. I am also informed that the hospital has the right to stop this study from being conducted if any misdeeds or unethical procedures are observed during the data collection process on the hospital's premises. There I declare my voluntary consent on behalf of hospital management (Hargeisa Group Hospital, Edna Adan Hospital, Kaah Hospital, and Gargaar Hospital) to allow this study to be conducted in the hospital here is my initials and signature.

Name and signature of the head of the hospital _____ signature: _____ Date_____/___2023

Name and signature of the principal investigator _____ signature: _____Date: ____/___2023.

7.2 Information sheet and informed voluntary consent form for participants' ≥ 18years of age.

Introduction: Assalamu Alaikum! My name is _____ and I am here to collect data for a master's thesis by Fathia Mohamoud, who is a student at Haramaya University, College of Health and Medical Science, and I kindly request that you give me your attention so that I can explain to you about the study. You are selected to participate in this study because you have a child younger than six months and you were found during the study period.

The study title is "**prevalence of Exclusive Breastfeeding and its Associated Factors among mothers attending hospitals in Hargeisa city, Somaliland."**

Purpose of the study: The aim of this study is to write a thesis as a partial requirement for the fulfillment of a master's program for the principal investigator. Furthermore, the findings of this study will be crucial for hospitals, the Ministry of Health (MOH), and non-governmental organizations (NGOs) working in child survival programs in planning, implementing, and designing interventions to improve the practice of exclusive breastfeeding in the area and other similar circumstances, and they will provide more scientific knowledge about the importance of exclusive breastfeeding for both mothers and their infants.

Procedure and duration: The participants would be interviewed to determine if they practice exclusive breastfeeding or not; a woman with a child within the age range of six months and below would be considered during the process of generating the variable "exclusive breastfeeding," and the interview would take around 20 minutes for each participant, so please, I kindly request that you lend me your time.

Risk and Benefits: The risk of participating in this study is very minimal, only taking a few minutes of your time, and there is no direct payment for this study, but the findings from this research may reveal important information for the local health planners.

Confidentiality: - All the information you give **will be anonymous and confidential**, only used for the purposes of this research, and only accessible to me. No third parties will have access to any of the information you provide. The data will be collected, stored, and disposed of in a

secure manner. The information will be used in a way that will not allow you to be identified individually, and the findings of the study would be generalized.

Rights: Participation in this study is entirely voluntary; you may participate or withdraw at any time; and you have the right to know the study's findings.

Contact address: if there are any questions or inquires at any time about the study or the procedures, please contact: PI: Fathia Mohamoud H. Hassan, phone: +252634198874, email: faatiya2020@gmail.com, as well as the contact information for the responsible Institutional Health Research Ethics Committee (IHRERC) at 0252662011 or P.O.Box 235, Harar, Ethiopia.

Declaration of informed voluntary consent: I have read or had read to me the participant information sheet; I understand the purpose of the research, the procedure, the risks and benefits, the confidentiality, the rights of participation, and the contact address for any inquiries. I have been given the opportunity to ask questions about anything that may have been unclear, and I have been informed that I have the right to withdraw at any time. As a result, I declare my voluntary consent to participate in this study.

Interview's Name: _____ signature: _____
Date_____/___2023

Supervisor's Name: _____ signature: _____Date: ____/___2023.

7.3: Information sheet and voluntary consent for participant's ≥18 years of age (Somali language version).

Hordhac: Magacaygu waa **Fathia Mohamoud H.Hassan**; Anigu waxaan ahay baaraha mabda'a ee daraasadda lagu qabanayo cisbitaalkan; Waxaan shahaadada masterka ka bartaa jaamacada Haramaya, kulliyadda caafimaadka guud iyo cilmiga caafimaadka; waxaanan si naxariis leh idinka codsanayaa inaad i siisaan dareenkaaga iyo walhtigaaga si aan kuugu sharaxo daraasadda iyo sababta aan ugu doortay in aan ka sameeyo warbxinta cusbitaalkaga.

Ciwaanka daraasaddu waxa weeyan; Baaxadda Naasnuujinta Gaarka ah ee Naasnuujinta iyo Waxyaalaha la xidhiidha ee saameeya oo laga sameyayo daraasada hooyyinka ku nool Hargeysa, **Somaliland.**

Ujeedada daraasadda: Ujeedada daraasaddan waa in la qoro tesis ahaan shuruudo qayb ahaan looga baahan yahay dhammaystirka barnaamijka masters-ka ee ardeyga. Intaa waxaa dheer, natiijooyinka daraasaddan ayaa muhiim u ah isbitaallada, Wasaaradda Caafimaadka (MOH), iyo hay'adaha aan dawliga ahayn (NGO-yada) ee ka shaqeeya barnaamijyada badbaadada carruurta ee qorsheynta, hirgelinta, iyo qaabaynta waxqabadyada si loo horumariyo dhaqanka naasnuujinta gaarka ah ee degaanka iyo xaaladaha kale ee la midka ah.sidoo kale waxey kor u qaadaysa natiijada daraasadan ka soo baxdaa cilmiga iyo wacyiga nasnuujinta gaarka ahi u leedahayn hooyada iyo ilmaheedaba.

Habka iyo muddada: Xogta waxaa laga soo ururin doonaa hooyooyinka haysta carruur ka yar lix bilood inta lagu jiro muddada daraasadda kuwaas oo keeni doona carruurtooda xarumaha la doortay,kaas oo u ka mid noqdey xaruuntaadan caafimad markii si bakhtiyaa nasiib ah loo doortay.

Hooyiyinka waxa laga wareysan doona Naasnuujinta gaarka ah inay sameeyan iyo inkale ilaa 20 daqiiqo ayuu qaadan doona wareysigu.

Khatarta iyo Faadada daraasadan leedahay: Khatarta ka-qaybgalka daraasaddan waa mid aad u yar, kaliya waxa aanu ka qaadanayna wakhtigaaga inyaroo ka mid ah, lacag laguma qaadanayo daraasadan, xaqna waxaad u leedahay maxsuulka kazoo baxa Inaad ka war hayso .

Qarsoodi: - Dhammaan macluumaadka aad bixiso waxay noqon doonaan qaar qarsoodi ah, kaliya loo isticmaalo ujeedooyinka cilmi-baadhistan, Xogta waa la ururin doonaa, la kaydin

doonaa, oo loo tuuri doonaa si sugan.Macluumaadka waxaa loo isticmaali doonaa qaab aan kuu oggolaan doonin in shaqsi ahaan laguu aqoonsado.

Xuquuqda: Ka-qaybgalka daraasaddan gabi ahaanba waa ikhtiyaari; waad ka qaybqaadan kartaa ama ka noqon kartaa wakhti kasta; waxaadna xaq u leedahay inaad ogaato natiijada daraasadda.

Cinwaanka aad lasoo xidhiidhkarto: haddii ay jiraan wax suaalo ah ama wax laga weydiiyo wakhti kasta oo ku saabsan daraasadda ama nidaamka, fadlan la xiriir: Baaraha maamulaha Fathia Mohamoud H. Hassan, phone: +252634198874, email: faatiya2020@gmail.com, iyo sidoo waxaad la xidhiidhi kartaa Guddiga Anshaxa Cilmi-baarista Caafimaadka ee mas;uul ka ah (IHRERC) ee 0252662011 ama POBox 235, Harar, Ethiopia.

Ku dhawaaqida ogolaanshaha ikhtiyaariga ah ee la wargaliyay: Waan akhriyay ama ii akhriyay xaashida macluumaadka ka qaybqaataha; Waxaan fahamsanahay ujeedada cilmibaarista, habka, khatarta iyo faaiidooyinka, sirta, xuquuqda ka qaybgalka, iyo macluumaadka xiriirka.Waxa kale oo la ii sheegay in cisbitaalku xaq u leeyahay in uu joojiyo daraasaddan haddii wax qalad ah ama habraac anshax xumo ah lagu arkay inta lagu guda jiro hawsha xog ururinta. Halkaa waxaan kaga dhawaaqayaa ogolaanshahayga ikhtiyaarka ah anoo ka wakiil ah maamulka isbitaalka (Hargeisa Group Hospital, Edna Adan Hospital, Kaah Hospital, and Daami MCH) si aan u muujiyo ogalaansha waan u saxeexaya.

Magaca iyo saxeexa la wareystaha/hooyada _____ saxeex _____ magaca iyo saxeexa cimi baadhaha _____ saxeex _____wakhtiga ____/___2023.

7.4 Information sheet and informed voluntary consent form for parents/guardians of participants < 18years of age.

Introduction: Assalamu Alaikum! My name is _____ and I am here to collect data for a master's thesis by Fathia Mohamoud, who is a student at Haramaya University, College of Health and Medical Science, and I kindly request that you give me your attention so that I can explain to you about the study. You are selected to participate in this study because you have a child younger than six months and you were found during the study period.

The study title is "prevalence **of Exclusive Breastfeeding and its Associated Factors among mothers attending hospitals in Hargeisa city, Somaliland."**

Purpose of the study: The aim of this study is to write a thesis as a partial requirement for the fulfillment of a master's program for the principal investigator. Furthermore, the findings of this study will be crucial for hospitals, the Ministry of Health (MOH), and non-governmental organizations (NGOs) working in child survival programs in planning, implementing, and designing interventions to improve the practice of exclusive breastfeeding in the area and other similar circumstances, and they will provide more scientific knowledge about the importance of exclusive breastfeeding for both mothers and their infants.

Procedure and duration: The participants would be interviewed to determine if they practice exclusive breastfeeding or not; a woman with a child within the age range of six months and below would be considered during the process of generating the variable "exclusive breastfeeding," and the interview would take around 20 minutes for each participant, so please, I kindly request that you lend me your time.

Risk and Benefits: The risk of being participating of your child in this study is very minimal, only taking a few minutes of your time, and there is no direct payment for this study, but the findings from this research may reveal important information for the local health planners.

Confidentiality: - All the information you give **will be anonymous and confidential**, only used for the purposes of this research, and only accessible to me. No third parties will have access to any of the information you provide. The data will be collected, stored, and disposed of in a

secure manner. The information will be used in a way that will not allow you to identify individually and the findings of the study would be generalized.

Rights: Participation in this study is fully voluntary; you have to write to declare to allow your child to be involved in this study or not, you have the right to withdraw at any time; and you have the right to know the study's findings.

Contact address: if there are any questions or inquires at any time about the study or the procedures, please contact: PI: Fathia Mohamoud H. Hassan, phone: +252634198874, email: faatiya2020@gmail.com, as well as the contact information for the responsible Institutional Health Research Ethics Committee (IHRERC) at 0252662011 or P.O.Box 235, Harar, Ethiopia.

Declaration of informed voluntary consent: I have read or had read to me the participant information sheet; I understand the purpose of the research, the procedure, the risks and benefits, the confidentiality, the rights of participation, and the contact address for any inquiries. I have been given the opportunity to ask questions about anything that may have been unclear, and I have been informed that I have the right to withdraw my child from the study at any time. Therefore, I declare my voluntary consent to allow my child to participate in this study with my initials (signature).

Name of participant: _____ (Assess affirmed if a minor age 0f 13-17)

Name parent/legal guardian _____ signature: _____
Date_____/___2023

Name of data collector _____ signature:
_____Date:____/___2023.

N.B: - this is signed face to face in the presence of the data collector.

Please provide a copy of this signed consent to the participant’s legal representative.

If the representative (parent/guardian) is lay person and cannot sign initials, please put his/her thumb print in front of a competent witness and the witness have to sign alongside (with his/her name and address).

7.5: Information sheet and informed voluntary consent form for parents/guardians of participants < 18years of age (Somali language version).

Hordhac: Magacaygu waa **Fathia Mohamoud H.Hassan**; Anigu waxaan ahay baaraha mabda'a ee daraasadda lagu qabanayo cisbitaalkan; Waxaan shahaadada masterka ka bartaa jaamacada Haramaya, kulliyadda caafimaadka guud iyo cilmiga caafimaadka; waxaanan si naxariis leh idinka codsanayaa inaad i siisaan dareenkaaga iyo walhtigaaga si aan kuugu sharaxo daraasadda iyo sababta aan ugu doortay in aan ka sameeyo warbxinta cusbitaalkaga.

Ciwaanka daraasaddu waxa weeyan; Baaxadda Naasnuujinta Gaarka ah ee Naasnuujinta iyo Waxyaalaha la xidhiidha ee saameeya oo laga sameyayo daraasada hooyyinka ku nool Hargeysa, **Somaliland.**

Ujeedada daraasadda: Ujeedada daraasaddan waa in la qoro tesis ahaan shuruudo qayb ahaan looga baahan yahay dhammaystirka barnaamijka masters-ka ee ardeyga. Intaa waxaa dheer, natiijooyinka daraasaddan ayaa muhiim u ah isbitaallada, Wasaaradda Caafimaadka (MOH), iyo hay'adaha aan dawliga ahayn (NGO-yada) ee ka shaqeeya barnaamijyada badbaadada carruurta ee qorsheynta, hirgelinta, iyo qaabaynta waxqabadyada si loo horumariyo dhaqanka naasnuujinta gaarka ah ee degaanka iyo xaaladaha kale ee la midka ah.sidoo kale waxey kor u qaadaysa natiijada daraasadan ka soo baxdaa cilmiga iyo wacyiga nasnuujinta gaarka ahi u leedahayn hooyada iyo ilmaheedaba.

Habka iyo muddada: Xogta waxaa laga soo ururin doonaa hooyooyinka haysta carruur ka yar lix bilood inta lagu jiro muddada daraasadda kuwaas oo keeni doona carruurtooda xarumaha la doortay,kaas oo u ka mid noqdey xaruuntaadan caafimad markii si bakhtiyaa nasiib ah loo doortay.

Hooyiyinka waxa laga wareysan doona Naasnuujinta gaarka ah inay sameeyan iyo inkale ilaa 20 daqiiqo ayuu qaadan doona wareysigu.

Khatarta iyo Faadada daraasadan leedahay: Khatarta ka-qaybgalka daraasaddan waa mid aad u yar, kaliya waxa aanu ka qaadanayna wakhtigaaga inyaroo ka mid ah, lacag laguma qaadanayo daraasadan, xaqna waxaad u leedahay maxsuulka kazoo baxa Inaad ka war hayso .

Qarsoodi: - Dhammaan macluumaadka aad bixiso waxay noqon doonaan qaar qarsoodi ah, kaliya loo isticmaalo ujeedooyinka cilmi-baadhistan, Xogta waa la ururin doonaa, la kaydin

doonaa, oo loo tuuri doonaa si sugan.Macluumaadka waxaa loo isticmaali doonaa qaab aan kuu oggolaan doonin in shaqsi ahaan laguu aqoonsado.

Xuquuqda: Ka-qaybgalka daraasaddan gabi ahaanba waa ikhtiyaari; ilmahaaga wuu ka qaybqaadan kartaa ama waad kala noqon kartaa wakhti kasta; waxaadna xaq u leedahay inaad ogaato natiijada daraasadda.

Cinwaanka aad lasoo xidhiidhkarto: haddii ay jiraan wax suaalo ah ama wax laga weydiiyo wakhti kasta oo ku saabsan daraasadda ama nidaamka, fadlan la xiriir: Baaraha maamulaha Fathia Mohamoud H. Hassan, phone: +252634198874, email: faatiya2020@gmail.com, iyo sidoo waxaad la xidhiidhi kartaa Guddiga Anshaxa Cilmi-baarista Caafimaadka ee mas;uul ka ah (IHRERC) ee 0252662011 ama POBox 235, Harar, Ethiopia.

Ku dhawaaqida ogolaanshaha ikhtiyaariga ah ee la wargaliyay: Waan akhriyay ama ii akhriyay xaashida macluumaadka ka qaybqaataha; Waxaan fahamsanahay ujeedada cilmibaarista, habka, khatarta iyo faaiidooyinka, sirta, xuquuqda ka qaybgalka, iyo macluumaadka xiriirka.Waxa kale oo la ii sheegay in ilmaheygu xaq u leeyahay in uu joojiyo daraasaddan haddii wax qalad ah ama habraac anshax xumo ah lagu arkay inta lagu guda jiro hawsha xog ururinta. Halkaa waxaan kaga dhawaaqayaa ogolaanshahayga ikhtiyaarka ah anoo ka wakiil ah ilmahayga.

Magaca ka qeybqaataha: _____ (iska eeg da,da qofku inuu u dhaxeeyo 13-17)

Magaca waalidka _____ saxeexa _____ wakhtiga _____/___2023

Magaca xog ururinta _____ saxeexa _____wakhtiga ____/___2023.

Ogeysiin

Waa in la saxeexa warqadan xog ururiyaha oo goob joog ah Fadlan

sii xabad aad u daabacday waalidka wada ilmaha.

Haduuna waalidka uuna saxeexi kareyn fadlan ha saaro suulka meesha magiciisa iyo cinwaanginu ku suntanyahay.

7.6: English version Questionnaires Form

Code ----------

Section One: Socio demographic characteristics				
S. No		Categories		Skip
1	What is your marital status?	a) Married b) Ever married c) Divorced d) Widowed e) Others, specify…….	1 2 3 4 5	
2	How old are you?	……in years		
3	What is your educational status (mother)?	a) no education b) Primary level c) Secondary level d) higher level	1 2 3 4	
4	What is educational status of baby's father or your husband/partner?	a) no education b) Primary level c) Secondary level d) higher level	1 2 3 4	
5	What is occupation of baby's mother?	a) professional/technical/managerial b) clerical c) sales and services d) skilled manual e) unskilled manual f) domestic service g) agricultural h) Others (specify)…….	1 2 3 4 5 6 7 8	

6	What is the occupation of baby's father?	a) professional/technical/managerial b) clerical c) sales and services d) skilled manual e) unskilled manual f) domestic service g) agricultural h) Others (specify)…….	1 2 3 4 5 6 7 8	
7	What is your monthly income in USD?	----------USD		
8	What is the sex of the child?	a) Female b) male	1 2	
9	What is your child's age in months?	……. months.		

Section two: Breastfeeding practices questions (outcome variable)				
S. No	**Questions**	**Categories**		**Skip**
11	Have you been feeding your child only breast milk, no other liquids, or solids, with the medications in the past 24 hours prior to the interview?	a) Yes b) no	1 2	
12	When did you initiate feeding your baby breast milk?	a) Immediately b) …...hours c) ……days	1 2 3	

13	In the first three days after delivery, was your child (NAME) given anything to drink other than breast milk?	a) Yes b) no.	1 2	If no, skip Q14
14	If answer **for question 11** is after one hour or days what was/were the reason(s)?	a) Fatigue b) Breast pain c) cultural and d) traditional beliefs e) I thought that the breast milk secretion is insufficient.	1 2 3 4 5	
15	Did you give your child other than breast milk or medication?	a) Yes b) no	1 2	If no, skip Q
16	If the answer of **question 14** is yes, what was your child given to drink other than breast milk? (More than one answer is possible)	a) Holy-water/plain water b) Non-milk liquid c) Other milk (infant formula/animal milk d) Other,specify……	1 2 3 4	
17	How many times did you breastfed last 24 hours?	--------- times/number		

18	When you usually breastfeed your child? (More than one answer is possible)	a) on the demand b) when the child cries c) on schedule d) when breast encouraged e) other conditions, specify…….	1 2 3 4	
19	For how many months did you feed with breast milk only?	……...months		

Section three: Health service utilization related factors				
S no	Questions	**Categories**		Skip
20	When you were pregnant with this child did you visit the health facility for antenatal care?	a) Yes b) no	1 2	If not, skip to Q22
21	If answer yes of Q19, how many times have you visit?	a) ------- times b) I don't remember	1 2	
22	Did you receive any counselling about exclusive breastfeeding (EBF)?	a) Yes b) no	1 2	
23	Where did you give birth to this baby?	a) Home b) Health facility	1 2	If the answer is a health facility skip to Q**24**

24		a) Health professional b) Traditional birth attendant c) Relative/friend d) Other (specify)----------	1 2 3 4	
25	Have you got a postnatal care service after delivery?	a) Yes b) no	1 2	
26	If answer **question 24** is a yes, did you receive any counselling on exclusive breastfeeding?	a) Yes b) no	1 2	

Section four: Obstetrics and medical related factors				
S no	Questions	**Categories**		Skip
27	In which way did you give birth (mode of delivery) to your youngest child?	a) Through normal (Vaginal) b) By oppression (C-section)	1 2	
28	Have ever face a breast complication while you were practicing breastfeeding	a) Yes b) no	1 2	**If no skip Psychosocial factors**
29	If **Q27** yes, how did it interfere with practicing breastfeeding	a) Reduced milk production b) Interfered with EBF via early introduction of other	1 2	

		c) solid/semisolid food d) Can't resist the pain so I avoid the baby to be suckle	3 4	

Section four: Psychosocial factors				
S no	Questions	**Categories**		Skip
30	Have you got any support from your family while practicing breastfeeding?	a) Yes b) no	1 2	
31	Whom you get a support?	a) Husband b) Mother-in-law c) Grandmother/Father d) Other, specify …….	1 2 3 4	

Section five: Knowledge factors				
S no	Questions	**Categories**		Skip
32	Have you ever heard about EBF?	a) Yes b) no	1 2	**If NO skip question 33**
33	Where did you receive information about EBF?	a) Health institutions b) Family and friends c) Mass media d) Books e) Others, specify……	1 2 3 4 5	

34	Does frequent sucking help milk production?	a) Yes b) no	1 2	
35	did you squeeze and throw out the first milk(colostrum)	a) Yes b) no	1 2	
36	What was/were your reason(s) of discarded?	a) To initiate milk production b) b. Colostrum causes abdominal cramp	1 2	

Section six: Attitude factors				
S.no	Questions	**Categories**		Skip
37	How do you feel about breastfeeding in public places?	a) Comfortable b) Uncomfortable	1 2	
38	Do you feel bottle feeding is dangerous to the baby?	a) Yes b) no	1 2	
39	Do you think breast milk is sufficient for the child?	a) yes b) no	1 2	
40	Do you encourage exclusive breastfeeding?	a) Yes b) no	1 2	

Thank you for your cooperation and patience.

I completed my interview

7.7: Weydiimo (Somali language version)

Qeybta kooba: Arrimaha dhaqan-dhaqaale iyo bulsho				
T.tiro	**suaalo**	**qeybaha**		**Ka bood**
1	Waa maxay xaaladdaada guur?	a. Guursaday b. abid guursaday c. La furay d. laga dhintay e. waxkale hadey jiraan , qeex……	1 2 3 4 5	
2	imisa jir baad tahay?	---------- sanado ah.		
3	waxbarashada heerkeed ka gaadhay?	a. waxba ma baran b. dugsiga hoose /dhexe c. dugsiga sare d. heerarka sare sida jaamacada iyo iwm.	1 2 3 4	
4	Ilmaha aabihii anba odeygaag heerkee uu waxbarashada ka gaadhay?	a. waxba ma baran b. dugsiga hoose /dhexe c. dugsiga sare d. heerarka sare sida jaamacada iyo iwm.	1 2 3 4	
5	Hooyada ilmaha dhashay xagey ka shaqeysa ?	a. xirfadle/farsamo/maamuleed b. wadaadnimo c. iibka iyo adeegyada d. buug-gacmeed xirfad leh e. buug-gacmeed aan xirfad lahayn f. adeegga guri g. beeralayda h. waxkale……	1 2 3 4 5 6	

			7 8	
6	aabaha ilmaha dhalay xagee bu ka shaqeeya ?	a. xirfadle/farsamo/maamuleed b. wadaadnimo c. iibka iyo adeegyada d. buug-gacmeed xirfad leh e. buug-gacmeed aan xirfad lahayn f. adeegga guri g. g. beeralayda h. waxkale……	1 2 3 4 5 6 7 8	
7	dhaqaale inte leegba ku soo gala bishii oo dollar ah ?	---------- lacagta oo dollar ah sheeg		
	Macluumada ilmaha yar			
8	macluumadka ku saabsan jinsiga ilmaha yar?	a) Dhedig b) lab	1 2	
9	da,da ilmaha yar oo bilo ah?	----------bilo ahaan		

Qeybta Labaad: Xogta naasnuujinta gaarka ah

T.tiro	**suaalo**	**qeybaha**		**Ka bood**
10	Weligaa ma nuujisay ilmahaagan ka yar lix bilood ?	a. haa b. maya	1 2	Haday jawaabtadu maya tahay , u bood qeyta adeega caafimadka ee sadexaad
11	Ma siisay ilmahaagan 24kii saacadoood ee l soo dhaafay caanaha naaska oo kaliya oo aan lahayn wax daeera ah anba cunto kale, reebo dawooyinka uu Dhaklhtarku u soo qoray hadey jiraan?	a. Haa b. Mya	1 2	
12	wakhti intee le'eg naaska siisay ilmaha markaad umushay?	a. Isla markiiba waan siiyay b. Saacad ka bacdi c. Dhawr cisho ka bacdi	1 2 3	
13	Saddexda maalmood ee ugu horreeya dhalmada ka dib, ilmaha ma la siiyay wax aan ahayn caanaha naaska?	a. Haa b. maya	1 2	Hadey jawaabtadu maya tahay u bood suaasha 14aad.

14	Haddii jawaabta suaasha 11 ay tahay hal saac ama maalmo ka dib maxaa sababay?	a. Daal b. xanuun baan naasaha ka dareemay c. aaminsanaanta dhaqanka iyo dhaqanka d. Waxaan u maleeyay in dheecaanka caanaha naaska aysan ku filneyn. e. Wax kale, sii qeex	1 2 3 4 5 6	
15	Maad siisay ilmaha yar wax aan ahyn naaska anba dawo dhakhtarku uso qoray?	a. Haa b. Maya	1 2	
16	Haddii tahay jawaabta suaashada **14aad haa,** maxaad ilmahaaga siisay marka laga reebo caanaha naaska iyo dawada ? (Wax ka badan hal jawaab ayaa suurtagal ah)	a. Biyaha cashar ah b. dareere aan caano ahayn c. caanaha dhallaanka d. wax kale (sii qeex ----------	1 2 3 4	
17	imisa jeer baad naaska siisay ilmaha yar 24kii saacadood ee la soo dhaafay?	tirade 24kii saacadoo ----------		

18	badana goormad ilmaha yar naasnuujisa? (hal jawaab wax ka badan waa suurto gal)	a. markuu u baahdo b. markuu ooyo c. jadwal baan ku siiya d. marka caanaha naaska la cariyo ee ay ku soo istaagan e. xaalado kale ku siiya (qeex)……..	1 2 3 4 5	
19	imisa bilood baad naaska oo kaliya siisay ilmaha yar?	----------bilaha		

Qeybta seddexaad: Arrimaha la xiriira isticmaalka adeegga caafimaadka				
T.tiro	**suaalo**	**qeybaha**		**Ka bood**
20	Markaad uurka lahayd ilmahan ma booqatay xarunta caafimaadka si aad u hesho daryeelka dhalmada ka hor?	a. Haa b. Maya	1 2	Hadey, maya tahay jawaabtu , u bood suaasha 22aad
21	hadey jawaabta 19aad **Haa** , imisa jeer baaad booqatay xaruunta caafimadka?	a. ----------jeer b. Ma xasuusto	1 2	
22	Ma ka heshay wax la-talin ah oo ku saabsan naasnuujinta gaarka ah?	a) haa b) maya	1 2	

23	halkeed ku umushay ilmaha?	a. guriga b. Xaruun caafimaad	1 2	Hadey jawaabtu tahay xaruun caafimad U bood suaasha 24
24	Haddii aad guriga ku dhaliso yaa ku caawiyay dhalmada?	a.Xirfadlaha caafimaadka b.Umuliso dhaqameed c. Qaraabo/saaxiib d. Mid kale e. Qofna	1 2 3 4 5 6	
25	Ma heshay adeega daryeelka umusha kadib dhalmada?	a. Haa b. maya	1 2	
26	Hadey jawaabtada suaasha 24aad Haa tahay, ma hesg=hay la talin ku aadan naasnuujinta gaarka ah?	a. Haa b. Maya	1 2	

Qeybta afaraaad: Arrimaha uurka iyo caafimaadka la xiriira

T.tiro	suaalo	qeybaha		Ka bood
27	Qaabkee ku dhashay (qaabka dhalmada) ilmahaaga ugu yar?	a. Sida caadiga ah b. qalliin	1 2	
28	Weligaa ma la kulantay dhibaato naasaha markaad naas nuujinaysay?	a. Haa b. maya	1 2	**hadey maya tahay jawaabtady u bood qeybta nafsiga bulsho**
29	Haddii jawaabta suaasha **27aad** ay haa tahay, Sidee ayay u saameyay naasnuujintailamah yar?	a) Wax soo saarka caanaha oo yaraaday b) wax khalkhal galay naasnuujintii gaarka ahayd oo waxaan siiyay ilamaha yar cabitaanyo aan naaska ahayn c) waan u adkaysan waayay xanuunka oo waan ka daayay ilmaha yar naaskiba	1 2 3	

T. tiro	suaalo	Qeyybaha		ka bood

30	Wax taageero ah ma ka heshay qoyskaaga marka aad naas nuujinayso?	a. Haa b. maya	1 2	Hadey maya tahay jawaabtadu , u bood suaasha 31aad
31	Yaad ka heshaa taageero?	a. odeygayga b. Soddohday c. Hooyo/Aabe weyn d. cid kale, sheeg …….	1 2 3 4	

Qeybta shanaad : Aqoonta ku saabsan naasnuujinta

T. tiro	**suaalo**	**Qeybaha**		**ka bood**
32	waligaa m maqashay naasnuujint gaarka ah?	a. Haa b. maya	1 2	
33	hadey jawaabta suaashada 36aad haa tahay , halkeed ka maqashay .	a) goob caafimad b) qoyskeyga anba asxaabteyda c) Baraha bulsha d) Buugaagta Meelo kale , si qeex meelahas kale ……..	1 2 3 4	
34	Naasnuujinta joogtada ihi kor ma uu qaadeysa soo saarka caanaha naaska?	a. Haa b. Maya	1 2	

35	Miyaad ka listaa oo daadisa caanah dambarka?	a. Haa b. maya	1 2	
36	Hadey jawaabtadu tahay 38aad Haa , maxay tahay sababta ad u listay oo u daadisay caanaha dambarka?	a. si aan un cariyo anba u bilaabo caanaha naaska b. waxey ku sababaysaa ilmaha yar calool xanuun	1 2	

Qeybta lixaad : aragtida laga qabo naasnuujinta

T. tiro	**suaalo**	**Qeyybaha**		**ka bood**
37	Sidee u aragtaa naas-nuujinta goobaha caamka ah?	a) waan ku siin karaa /raaxo leh b) waxaan dareema raaxo la'aan	1 2	
38	ma dareemeysa in caanaha musaasadu khatar caafimad unleedahay ilmaha caafimaadkiisa??	a) Haa **b)** Maya	1 2	
39	Ma u malayneysaa caanah naaska kaliya iney ku filanyihiin ilmaha yar ?	a) Haa b) maya	1 2	
40	Ma dhiirigalineysaa naasnuujinta gaar ah	a) haa b) maya	1 2	

Waan ku dhameeyay wareysiga.

Waad ku mahadsantahay dulqaadka iyo ka qeybqaadashadaada.