

ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCE
SCHOOL OF NURSING AND MIDWIFERY
DEPARTMENT OF NURSING

**Acceptability of Human Milk Donation and Associated Factors
among Postnatal Mothers at Public Hospitals in Addis Ababa,
Ethiopia, 2024**

BY: Eyerus Mekonnen (MSc)

**Thesis Submitted to Post-graduate Studies Addis Ababa University,
College of Health Sciences, School of Nursing And Midwifery,
Department of Nursing in Partial Fulfillment of the Requirements for
the Degree of Master of Science in Neonatal Nursing.**

May, 2024

Addis Ababa, Ethiopia

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APPROVAL SHEET
ADDIS ABABA UNIVERSITY
COLLEGE HEALTH SCIENCES
SCHOOL OF NURSING AND MIDWIFERY
DEPARTMENT OF NURSING,
MASTER OF SCIENCE IN NEONATAL NURSING

I, the undersigned MSc student, declare that I have submitted my original work on acceptability of human milk donation and associated factors among postnatal mothers at public hospitals of Addis Ababa, Ethiopia 2024, prepared by Eyerus Mekonnen satisfies the university's regulations and adheres to the accepted standards of originality and quality required for the Degree of Master of Sciences in Neonatal Nursing.

Submitted by:

Eyerus Mekonnen _____

Name of student

Signature

Date

This thesis work has been submitted for examination with my approval as an advisor.

Approved by:

1. **Dr.Fekadu Aga (PhD, Associate Professor)** _____

Name of Major Advisor

Signature

Date

2. **Sr. Feven Mulugeta , (MSc, Lecturer)** _____

Name of Co-Advisor

Signature

Date

APPROVAL BY THE BOARD OF EXAMINATION

This thesis by **Eyerus Mekonnen** accepted in its present form by the board of examiners as satisfying thesis requirement for the degree of masters of Science in Neonatal Nursing.

EXAMINER:

Mr. Debela Gela (Assistant professor)

NAME

RANK

SIGNATURE

DATE

RESEARCH ADVISORS:

Dr.Fekadu Aga (PhD, Associate Professor)

NAME

RANK

SIGNATURE

DATE

Sr. Feven Mulugeta , (MSc, Lecturer)

NAME

RANK

SIGNATURE

DATE

DEPARTMENT HEAD

NAME

RANK

SIGNATURE

DATE

STATEMENT OF DECLARATION

By my signature below, I declare and affirm that this thesis is my own work. I have followed all ethical principles of scholarship in the preparation, data collection, data analysis and completion of this thesis. All scholarly matter that is included in the thesis has been given recognition through citation. I affirm that I have cited and referenced all sources used in this document. Every effort has been made to avoid plagiarism in the preparation of this thesis.

This thesis is submitted in partial fulfillment of the requirement for a graduate degree from the Addis Ababa University at College of Health Sciences, School of Nursing and Midwifery department of Nursing. The thesis is deposited in the Addis Ababa University Digital Library and is made available to local, national and international scientific community. I solemnly declare that this thesis has not been submitted to any other institution anywhere for the award of any academic degree, diploma or certificate.

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STUDENT NAME: Eyerus Mekonnen (BSc) **Signature:** _____ **Date:** _____

RESEARCH ADVISORS:

Dr.Fekadu Aga (PhD, Associate Professor) _____

NAME	RANK	SIGNATURE	DATE
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Sr. Feven Mulugeta (MSc, Lecturer) _____

NAME	RANK	SIGNATURE	DATE
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SCHOOL OF NURSING AND MIDWIFERY
DEPARTMENT OF NURSING

Name of the principal investigator		Eyerus Mekonnen
Name of the Advisors	Principal Advisor	Dr.Fekadu Aga (PhD, Associate Professor) Email : fiqaaduuagaa@yahoo.com Tell : +251911033684
	Co Advisor	Sr. Feven Mulugeta , (MSc, Lecturer) Email: fevishome@gmail.com Tell : +251910712396
Title of research		Acceptability of Human Milk Donation and Associated Factors among Postnatal Mothers at Public Hospitals in Addis Ababa, Ethiopia, 2024
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Address of investigator		Email: eyerusme6@gmial.com Cell phone : +251923702120

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ABBREVIATIONS AND ACRONYMS

AAP	American Academy of Pediatrics
DHM	Donor Human Milk
EMDHS	Ethiopia Mini Demographic Health Survey
HBM	Human Breast Milk
HM	Human Milk
HMBANA	Human Milk Banking Association of North America
NEC	Necrotizing Enter Colitis
NICU	Neonatal Intensive Care Unit
PDHM	Pasteurized Donor Human Milk
PDHMB	Pasteurized Donor Human Milk Banking
SSA	Sub Saharan Africa
SPMMC	Saint Paul’s Millennium Medical College
TASH	Tikur Anbessa Specialized Hospital
UNICEF	United Nation Children Fund

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ABSTRACT

Background: The best nutrition for babies is breast milk; nevertheless, problems with the mother or the child may cause breastfeeding to be stopped temporarily or permanently. According to WHO and UNICEF, pasteurized donor milk is advised as an infant's first option. Ethiopia does not have a human milk bank yet, but the Ministry of Health is considering to establishing one. It is important to carefully assess if mothers perspective on the acceptability before establishing a human breast milk bank.

Objective: The aim of this study was to assess the acceptability of human milk donation and associated factors among postnatal mothers at public hospitals in Addis Ababa, Ethiopia, 2024.

Methods: An institutional-based cross-sectional study was conducted among 398 postnatal mothers from February 19 to March 19, 2024, using simple random sampling for hospitals and systematic random sampling for participants. Data was collected using interviewer-administered questionnaire via the Kobo Collector application. SPSS version 26 was used analyze the data, employing first binary logistic regression and then multivariable logistic regression to control confounders and establish associations. The statistical significance of the association was determined using 95% confidence interval and $p\text{-value} < 0.05$.

Result: Among postnatal mothers, 75.4% expressed willingness to donate breast milk. Mothers who had awareness of the human breast milk bank were 2.69 times (AOR = 2.69, 95% CI: 1.27-5.67), and those who had awareness about wet nurses were 2.96 (AOR = 2.96, 95% CI: 1.76-4.98) more likely to willing of breast milk donation. Furthermore, those who had previous delivery of a LBW baby were 2.40 times (AOR = 2.40, 95% CI: 1.04-5.54), and the literate one were 2.44 times (AOR = 2.44, 95% CI: 1.16-5.11) more likely of willing to donate.

Conclusion: Postnatal mothers exhibit a significant inclination to donate breast milk, influenced by factors like awareness of milk banks, familiarity with wet nurses, past experience of low-weight births, and literacy. Elevating awareness and education on milk donation, alongside tackling literacy, issues are pivotal for fostering milk donation.

Keywords: Acceptability, Breast Milk Donation, Postnatal Mother, Human Milk Bank, Ethiopia

1. INTRODUCTION

1.1. Background

Breast milk is the best nutrition for newborns, It includes a variety of complex proteins, lipids, and carbohydrates, the amounts of which vary considerably from feed to feed and throughout lactation to meet the demands of the newborn (1).

The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) recommend that children begin breastfeeding within the first hour of birth and continue to breastfeed exclusively for the first six months of life (2). Children should begin eating safe and adequate complementary foods at the age of 6 months, while continuing to breastfeed for up to two years or longer (3).

When a woman is unable to breastfeed, the use of human milk from other sources should be considered as a first option, according to WHO and UNICEF (4). The first Human Milk Bank (HMB) was established in Vienna, Austria in 1909, and wet nursing was a common practice in Europe during the 19th century, but it was not always accessible or had unhealthy lifestyles, so HMB was discovered as an alternative to wet nursing (5, 6). HMB is a service that recruits and screens human milk donors, collects donated human milk, screens, processes, and stores donor human milk, and distributes it to fulfill an infant's specific health need (5).

In order to make the use of donor breast milk safe and the second-best form of feeding for a neonatal intensive care unit (NICU) infant, the Human Milk Banking Association of North America (HMBANA) has established guidelines (7).

Donating mothers typically breastfeed their own babies and produce more milk than their babies require, and the women who donate are carefully chosen and tested for syphilis, hepatitis B, hepatitis C, human immunodeficiency virus, and human T-cell leukemia viruses. Giving milk is a selfless deed. Donors in most nations are not compensated; however, in some countries, donors are compensated in monetary terms for real expenditures paid (5).

All international recommendations for HMB now propose pasteurization, or "holder pasteurization," at 62.5°C for 30 minutes; however, this process impairs some of the bioactive and nutritional components of human milk, but many other valuable bioactive chemicals are totally or partially maintained and are not present in preterm formulae (8, 9).

After being pasteurized, milk is frozen and kept for up to a year in tiny (100–150 mL) containers (5). Donor milk can be delivered, like any expressed breast milk, by medical professionals or family members using a cup, spoon, stomach tubes, or tiny tubes that the child suckles alongside a nipple (10).

Breast milk banking is practiced worldwide, yet it's not widely known in developing country, mainly due to the influence of social, cultural, and religious factors, which shape perceptions and contribute to the nuanced understanding and acceptance of this concept (11).

The understanding of donation sustainability includes donation duration, features of the donors' infants, donors' characteristics (socio-demographic details, and motivation to donate), and factors related to the milk bank and healthcare system (awareness and support)(12).

1.2.Statement of the Problem

The global landscape of infant mortality is deeply concerning, with an estimated 26 infant deaths per 1000 live births in 2023, resulting in 2.3 million newborn fatalities in 2021. Notably, Sub-Saharan Africa (SSA) faces a staggering ten-fold higher risk of infant mortality within the first four weeks of life compared to high-resource settings (13). This stark reality is mirrored in the 2019 Ethiopia Mini Demographic Health Survey (EMDHS) data, revealing an alarming infant mortality rate of 47 deaths per 1000 live births, coupled with a worrisome rise in neonatal mortality from 29 deaths per 1000 live births in 2016 to 33 deaths per 1000 births in 2019 (14).

Premature birth is a major contributor to infant mortality and morbidity, affecting around 10% of all babies worldwide (15). However, breast milk has been shown to be an excellent choice for premature and sick babies, with its potent strategy for reducing the harmful effects of preterm birth (15, 16).

Human milk (HM) lowers the newborns' risk of mortality, protects them against necrotizing enterocolitis (NEC), sepsis and other infections, and serious retinopathy, and enhances their long-term cardiovascular and neurocognitive development and breastfed newborns have a 6 to 10 times reduced chance of having NEC than formula-fed infants (17, 18).

The percentage of breastfeeding falls short of the desired level worldwide. Only 47% of newborns in 2021 began breastfeeding within an hour of their birth. The percentage of infants under six months old who were exclusively breastfed during this time period was 48% (19).

In Ethiopia, the 2019 EDHS reports shows that the percentage of children who began breastfeeding within one hour of birth is 72% and only 59% of children under the age of six months are exclusively breastfed; and the latter declines with age (14).

Breastfeeding can be temporarily or permanently interrupted due to a number of reasons, such as prematurity, illness, or death of the mother therefore pasteurized donor milk is recommended as a first choice for any infant in situations where a mother's milk is unavailable (10, 20). The American Academy of Pediatrics (AAP) advises using pasteurized donor human milk (DHM) for any premature newborns weighing less than 1500 grams (21). Nevertheless, DHM is

typically reserved for the most severely preterm infants (those born with a birthweight of less than 1500 grams or less than 32 weeks gestation); as a result, more than 500,000 extremely premature infants worldwide do not currently have access to DHM (22).

Studies have shown that, donor milk considerably enhance the health of newborns by lowering the morbidity rate in situations involving feeding intolerance, sepsis, and necrotizing enterocolitis. Additionally, donor milk lowers the rates of infant morbidity and death, guards against sepsis that develops later in life, encourages successful catch-up growth, and raises the percentage of exclusive breastfeeding (23-26).

Diverse cultures and religions exhibit varying perspectives on the concept of human milk banking (27). Establishing the acceptability of human milk banking involves dispelling communities' beliefs and misunderstandings through information provision and awareness, emphasizing the valuable contribution of donor human milk to strengthen confidence and acceptance of breast milk donation and utilization (28).

Breast milk donation willingness varies globally. For instance, rates range from 84.9% in India to 25% in Bangladesh, and from 73.4% to 76.7% in China (27, 29-31). Southwest Nigeria and Eastern Ethiopia reported lower rates at 27.9% and 11% respectively (32, 33)

DHM donation is influenced by the traits of the donors, the health of their babies and aspects pertaining to HMBs, and health care systems (12).

Ethiopia does not yet have officially established human breast milk bank, but now the Ministry of Health is considering establishing. There is a limited study on postnatal mothers' willingness to participate in human milk bank activity so it is important to carefully assess their perspectives and associated factors before establishing a human breast milk bank. Therefore the purpose of this study is to determine the acceptability of breast milk donation and the factors associated among postnatal mothers.

1.3. Significance of the study

Human milk banking is a crucial aspect of providing lifesaving nutrition to vulnerable infants who cannot receive breast milk from their biological mothers. This study aligns with Ethiopia's national agenda, as improving infant nutrition and health is a key priority for the government. By assessing and determining factors associated postnatal mothers' willingness to human breast milk donating, it is essential for implementing effective strategies for those influencing predictors. This study result will provide insights into the feasibility and potential success of establishing a milk bank in Ethiopia.

Minister of health, healthcare professionals, organizations, and researchers can use the findings to enhance access to human milk and provide vital nutrition to vulnerable infants. Minister of health can use the information to develop and implement policies and programs that support the establishment and operation of human milk banks. Healthcare professionals can benefit from the study's findings by using the information to educate and counsel postnatal mothers about the benefits of human milk banking and address any concerns or stigmas they may have. Organizations working in maternal and child health can use the results to advocate for the establishment of human milk banks and support milk donation initiatives. Other researchers can use the study as a starting point for further research on human milk banking and donation.

2. LITERATURE REVIEW

This literature review aims to examine the existing scientific evidence on mothers' acceptance to donate human milk and the associated factors. It encompasses the willingness to donate human milk and factors linked to this willingness, including socio-demographic characteristics of the mother, maternal characteristics, maternal health services and awareness about human milk banks, as investigated in studies conducted across different countries.

2.1. Acceptability of Human Milk Donation

The published studies indicate differences in the willingness to donate breast milk across various countries. A cross-sectional study conducted in Bangladesh showed that only a quarter of the participants expressed willingness to donate their milk to a baby whom they did not know (27). A cross-sectional study conducted in India reported that 84.9% of participants expressed a willingness to donate breast milk (29). Similarly, two separate cross-sectional studies in China showed willingness to donate, with percentages of 76.7% and 73.4%, respectively (30, 31).

A mixed-methods study conducted in Italy showed that 56.9% of women expressed interest in donating their milk (34). Additionally, in Turkey, a cross-sectional study reported that 72.5% of mothers were willing to consider donating milk if milk banks were available, while another study indicated that approximately 50.8% of participants expressed consideration for donating their milk (35, 36).

A mixed-methods study conducted in Southwest Nigeria revealed that only 27.9% of the participants expressed willingness to donate their breast milk for another baby's use, while 72.1% were not willing to donate their milk (32). In a mixed-methods study in Ghana, the majority of participants (77.2%) were willing to donate milk (13). Similarly, another mixed-methods study conducted in Kenya found that 79% of participants expressed their willingness to provide their own milk to a human milk bank (37). A cross-sectional study carried out in South Africa found that 52.7% of participants were willing to donate their milk (38).

A mixed methods study carried out in Uganda women 77.6% were willing to donate human milk (39). According to a cross-sectional study done in eastern Ethiopia, just 11% of participants were willing to provide breast milk for banking (33).

2.2.Factors associated with Acceptability human milk Donation

According to different studies, the main reason for mothers' willingness to donate was to help other infants and the presence of excess breast milk (33, 40). Whereas, various studies have identified key reasons for people's hesitancy to donate, including the idea of Human Milk Banks (HMBs) as unfamiliar, concerns about infections, religious beliefs, and a lack of information and belief it will not be enough for their babies if they donate (32, 33, 37, 38).

2.2.1. Socio-demographic characteristics

In a cross-sectional study conducted in India, a significant correlation was found between education and postnatal mothers' attitudes towards human milk banking (41). On the contrary, in a cross-sectional study conducted in the southeast China found that respondents who were unemployed were more than twice as likely as those who were employed to be willing to donate human milk (AOR 2.30; 95% CI 1.17-4.50) (31). Another cross-sectional study conducted in China revealed that women's education level strongly predicts their willingness to donate milk with a higher likelihood if they were higher educational level, and age significantly predict their knowledge of HMBs and milk donation (42).

A cross-sectional study done in Turkey found that women considered human milk donation undesirable for religious grounds were 7.25 times more likely (40). Another mixed method study conducted in Turkey's Southeastern Anatolia Region reveals that factors such as education, employment status, family type, place of residence, and language used at home have a big influence on people's willingness to donate milk to HMB (43).

A mixed methods study carried out in Ghana, respondents with a college level education (OR, 4.97, CI 3.23, 7.72; p 0.001) and graduate education (OR, 7.20, CI 3.99, 13.49; p 0.001) were more likely to be willing to donate milk to an HMB if such a bank was formed (13).

A cross-sectional study carried out in Southwest Nigeria revealed that maternal education level significantly affected the readiness of the population to accept or donate DHM (32).

2.2.2. Maternal characteristics

A cross-sectional study carried out in China discovered that milk donation were significantly influenced by factors such as parity, delivery mode, mothers' milk production, history of preterm births or low birth weight (LBWI) deliveries, infant age, and health professionals' education (30). Another study conducted in China found that moms who had very low birth weight infants were more likely willing to donate breast milk (42).

According to research conducted in Nigeria, respondents who preferred donor milk over infant formula were 6.64 times more willing to donate their breast milk than those who preferred infant formula in serious medical conditions where they could not breastfeed their children or situations where it was not appropriate for them to do so (AOR= 6.64, 95% CI: 2.87, 15.36) (44).

2.2.3. Health care services

A study conducted in Brazil showed that receiving information on breast milk expression from primary health care units and receiving help from unit professionals to breastfeed were associated with a higher prevalence of donation. Conversely, the admission of newborns to neonatal units was associated with a lower prevalence of donation (45).

According to a cross-sectional, study conducted in eastern Ethiopia, the acceptance of human milk banking was correlated with the usage of healthcare services, NICU visits (AOR 2; 95% CI 1.1, 3.73), and the number of prenatal visits (AOR 0.52; 95% CI 0.32, 0.83) (33).

2.2.4. Awareness of mothers

In a cross-sectional study conducted in China found that women who had heard of HMBs and milk donation before were shown to be more likely to be willing to donate breast milk (B = 1.809, CI: 1.061, 2.557) (42).

A mixed methods study carried out in Uganda Women who had heard about wet nursing were 2.33 (1.10, 4.96) times more likely to accept human milk donation than those who had not heard about wet nursing (39).

According to an eastern Ethiopian cross-sectional, study, mothers who had heard of human breast milk banking were over five times more likely to accept it than mothers who had never heard of it. Similarly, mothers who had heard of wet nurses were 4.2 times more likely to accept it than mothers who had not (33).

2.3. Conceptual Framework

The conceptual framework for this study is derived from a comprehensive literature review investigating factors that influence mothers' willingness to donate human milk (30-33, 42-46).

Key variables include socio-demographic characteristics, maternal characteristics, health services, and awareness.

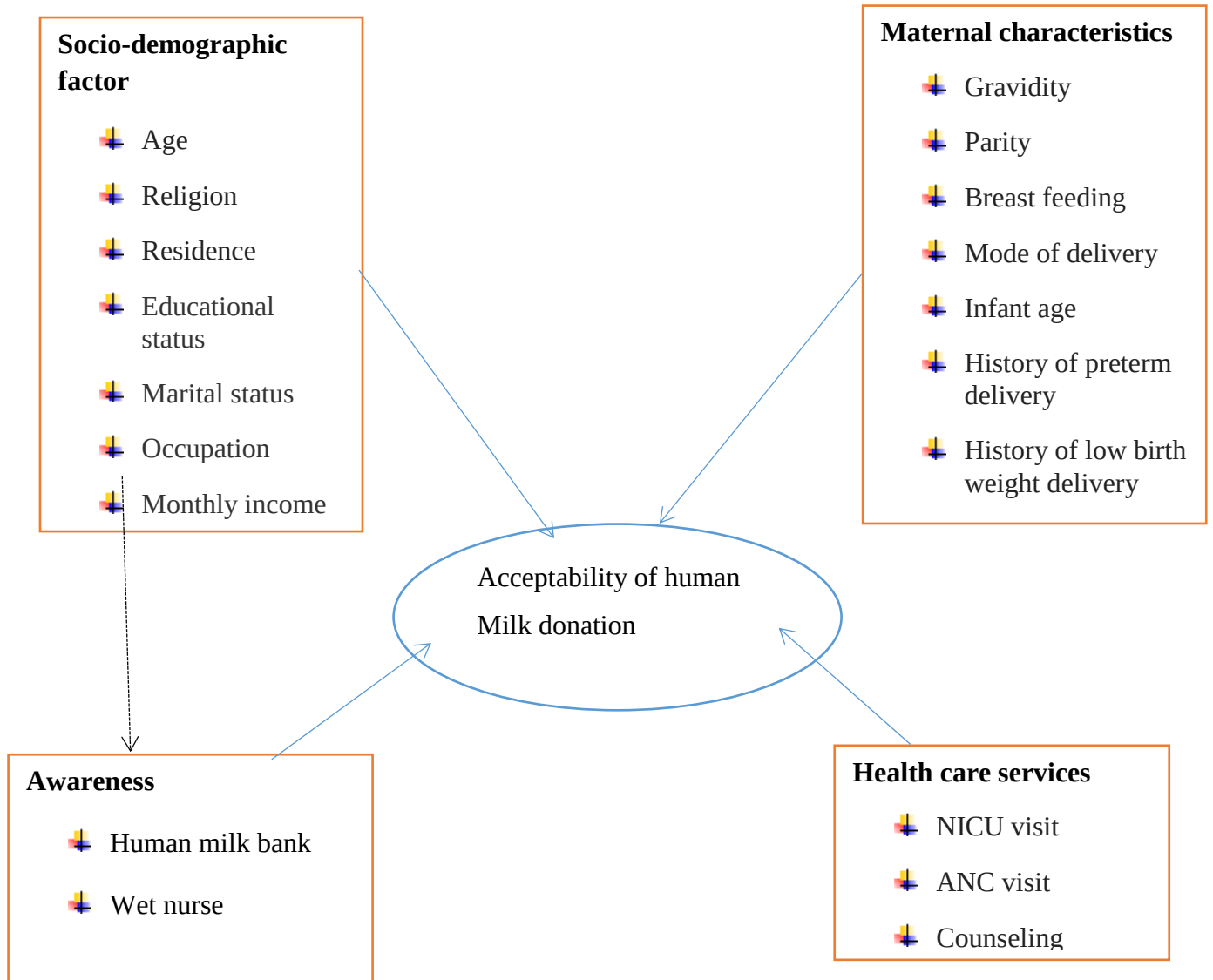


Figure 1 Conceptual framework on acceptability of human milk donation and associated factors among postnatal mothers at public hospitals of Addis Ababa, Ethiopia 2024

3. OBJECTIVES

3.1. General objective

To assess the acceptability of human milk donation and associated factors among postnatal mothers at public hospitals in Addis Ababa, Ethiopia 2024

3.2. Specific objectives

1. To determine the acceptability of human milk donation among postnatal mothers at public hospitals of Addis Ababa, Ethiopia 2024
2. To identify factors associated with the acceptability of human milk donation among postnatal mothers at public hospitals of Addis Ababa, Ethiopia 2024

4. METHODS AND MATERIALS

4.1. Study Area

The study was conducted in Addis Ababa, Ethiopia selected governmental hospitals, which provide maternal services such as labor and delivery and postnatal care. Addis Ababa, the capital city of Ethiopia, has a population of 3,061,404 according to the 2012 census. It is divided into 11 sub-cities, with an average altitude of 7,546 feet (2,300 meters). The city was served by 12 hospitals operated by the government. Among these, four hospitals were randomly selected for the study: Tikur Anbessa Specialized Hospital (TASH), St. Paul's Millennium Medical College Hospital (SPMMCH), Zewuditu Memorial Hospital, and Yekatit 12 Hospital. These hospitals catered to the population by providing essential maternal services, including labor and delivery assistance and postnatal care.

4.2. Study Design and Period

An Institutional-based cross-sectional study design was employed from February 19 to March 19, 2024.

4.3. Populations

4.3.1. Source Population

All postnatal mothers at public hospitals in Addis Ababa.

4.3.2. Study Population

All Postnatal mothers admitted at the selected public hospitals in Addis Ababa.

4.3.3 Study unit

Each systematic selected postnatal mothers admitted at the selected public hospitals in Addis Ababa.

4.4. Eligibility Criteria

4.4.1. Inclusion Criteria

- Postnatal mothers who gave birth at the selected hospital

- Postnatal mothers referred from other institution for other obstetrics services.
- Postnatal mothers whose newborns were admitted to the Neonatal Intensive Care Unit (NICU).

4.4.2. Exclusion criteria

- Women with mental disorders
- Critically ill mothers who were not able to answer

4.5. Sample Size Determination and Sampling Procedure

4.5.1. Sample Size

The required sample size was determined by using single population proportion formula by assuming that the maximum proportion of acceptability of human milk banking among postnatal mothers is to be 50% Z value of 1.96 and marginal error of 5% and non-response rate 10%, these factors were considered in the calculation. Opting for a 50% proportion ensures adequate statistical power, especially given previous studies tendency to yield small sample sizes when using their proportions.

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

Where: - n= required sample size, z= standard normal distribution curve value for 95% confidence level= 1.96, P= proportion of acceptability of human milk banking among postnatal mothers, d= margin of error

$$\text{Therefore, } n = \frac{(1.96)^2 \times 0.5(1-0.5)}{(0.05)^2} = 384$$

By adding 10% (i.e. 38.4) from the sample size, the actual sample size is **422**

4.5.2. Sampling procedure

There are twelve (12) public hospitals in Addis Ababa, and four hospitals were selected by a simple random sampling method among the 12 public hospitals: Tikur Anbessa Specialised Hospital (TASH), St. Paul's Millennium Medical College Hospital (SPMMCH), Zewuditu Memorial Hospital, and Yekatit 12 Hospital. The sample size is proportionally allocated for each hospital based on the average number of deliveries per month. Lastly, postnatal mothers were selected by systematic random sampling.

Table 1: Proportional allocation of sample size based on annual report for study on acceptability of human milk donation and associated factors among postnatal mothers at public hospitals of Addis Ababa, Ethiopia 2024

HOSPITALS	Twelve months case Flow	Average monthly case flow	The proportion of study Participants
TASH	5322	443	$443 \times 422 / 2589 = 72$
SPMMCH	8987	749	$749 \times 422 / 2589 = 122$
YEKATIT12	10860	905	$905 \times 422 / 2589 = 148$
ZEWUDITU	5900	492	$492 \times 422 / 2589 = 80$
TOTAL	31,069	2589	422

Proportionate to population size is calculated as

$$n_i = N_i \times n_0 / N$$

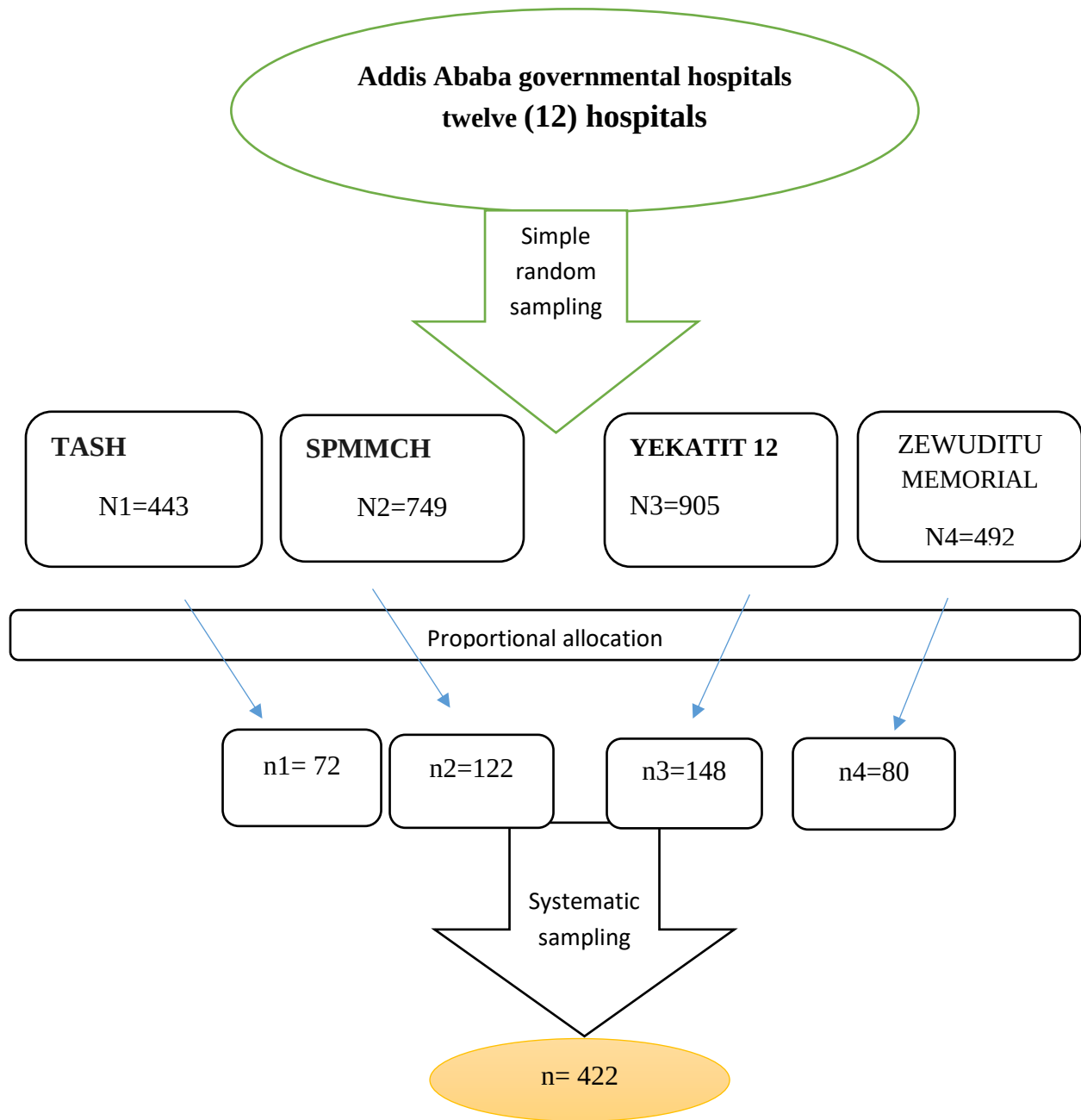


Figure 2: Schematic presentation of the sampling procedure for the study on acceptability of human milk donation and associated factors among postnatal mothers at public hospitals of Addis Ababa, Ethiopia 2024

4.6. Variable of the Study

4.6.1 Dependent variable

Acceptability of human milk donation

4.6.1. Independent variable

Socio demographic characteristics of postnatal mothers (Age, Marital status, Residence, Religion, Educational status, Occupation, Income)

Maternal characteristics (Gravidity/Parity, Mode of delivery, pre-term delivery, low birth weight delivery, Child feeding, infant age)

Health care services (ANC visiting, Rate of ANC visiting, Counseling during ANC visiting, Counseling during postnatal care, NICU visit)

Awareness (human milk banking, wet nurse)

4.7. Operational Definition

Human milk banking- Is an organization founded by healthcare professionals to collect, screen, process, preserve, and distribute breast milk donated by individuals in need(47)

Acceptance of human milk donation- A postnatal mother who willingness to donate human breast milk for the human milk bank(46)

Awareness of mothers about human milk banking- If she ever heard about donor milk banking before(33).

Postnatal mother- Mother who had given birth to a baby with in the last six weeks (42 days)(48)

Wet-nurse- Refers to a mother who breast feeds for another's baby(33).

Awareness of about Wet-nurse- If she ever heard about wet nurse before.

Low Birth Weight- Infants have a birth weight below 2500gram (49).

Preterm - Infants have a gestational age below 37 weeks at birth (49).

4.8. Data Collection Tool and Procedure

A structured questionnaire adapted from different literature (31, 33, 38) was used to assess the acceptability of human milk donation and associated factors among postnatal mothers. It consisted of four parts. Part 1 included socio-demographic characteristics: Age, Marital status, Religion, Residence, Educational status, Occupation, and Income. Part 2 included maternal characteristics and gravity/parity; mode of delivery; pre-term delivery; low birth weight delivery; and child feeding. Part 3 included health care services: ANC visiting, rate of ANC visiting, counseling during ANC visiting, and counseling during postnatal care. Part 4 included awareness about human milk banking and wet nurses. Part 5 included the acceptability of human milk donations.

The data was collected through face-to-face interviews by eight midwives who were working in selected health institutions. The whole data collection process was carefully monitored by the principal investigator and three supervisors (BSc midwives). One-day training was given to the data collectors and supervisors about the data collection tool, the way of approaching the mothers, and the whole data collection procedure.

4.9. Data quality control

The questionnaire and consent documents were translated from the English language into Amharic and subsequently retranslated back into English to ensure consistency. A pretest was conducted on 5% of the sample size at Gandhi Memorial Hospital one week prior to the actual data collection to assess the clarity and applicability of the study tools. Necessary corrections were made based on the feedback obtained from the pretest.

4.10. Data processing and analysis

The completed questionnaire data from Kobotolbox underwent thorough completeness checks before being exported to the Statistical Package for Social Sciences (SPSS) software for coding and analysis. Descriptive statistics including frequencies, proportions, and summaries were employed to characterize the study population with respect to relevant variables. Subsequently, a binary logistic regression model was utilized to identify independent variables eligible for inclusion in the analysis. Variables with a p-value of less than 0.25 in the bivariable analysis proceeded to multivariable logistic regression to address potential confounding effects. In the multivariable logistic regression, a p-value of <0.05 , along with a 95% confidence interval for odds ratio, was used to determine significant associations between variables.

4.11. Ethical Consideration

The proposal underwent approval processes by the Department of Nursing Research Committee, followed by obtaining Ethical clearance from the Ethical Review Committee of Addis Ababa University, College of Health Sciences, Department of Nursing, as well as from the Addis Ababa Health Bureau. Subsequently, data collection was conducted after securing consent from selected public hospitals. Participants were duly informed about the study's purpose, the significance of their involvement, and their rights. Written informed consent was obtained from all participants before the commencement of data collection.

5. RESULT

5.1 Socio-Demographic Characteristics of postnatal mothers

A total of 398 study subjects participated, achieving a 94.3% response rate.

Table 2 shows that, demographic characteristics and related frequencies from a study sample. Participants were predominantly aged between 26 and 30 (45.7%), with a sizable proportion under 25 (32.9%). The majority identified as Orthodox (46.7%), resided in urban areas (91.5%), and were married (88.2%). Regarding education, most were literate (89.4%). Housewives comprised the largest occupational group (47.5%). Additionally, partners exhibited similar patterns of literate (90.6%) and occupational distribution, with self-employment being prevalent (59%). Income distribution varied, with nearly half earnings above 5000 birr per month.

Table 2: Sociodemographic characteristics participant for the study on acceptability of human milk donation and associated factors among postnatal mothers at public hospitals of Addis Ababa, Ethiopia 2024, (n =398).

Variable	Categories	Frequency (n)	Percentage (%)
Age	<25	131	32.9
	26-30	182	45.7
	31-35	62	15.6
	>35	23	5.8
Religion	Protestant	95	23.9
	Orthodox	186	46.7
	Muslim	117	29.4
Residence	Urban	364	91.5
	Rural	34	8.5
Marital status	Single	22	5.5

	Divorced	25	6.3
	Married	351	88.2
Educational status	Literate	356	89.4
	Cannot read and write	42	10.6
Occupation	Private employed	21	5.3
	House wife	189	47.5
	Self employed	109	27.4
	Governmental employed	79	19.8
partner educational status	Literate	318	90.6
	Cannot read and write	33	9.4
partner Occupation	Private employed	60	17.1
	Self employed	207	59
	Governmental employed	84	23.9
Monthly Income(in birr)	<2000	50	12.6
	2000-3000	57	14.3
	3000-5000	105	26.4
	>5000	186	46.7

5.2 Maternal characteristics of postnatal mother

Postnatal maternal characteristics display a varied range of experiences among participants. Table 3 shows that the majority had 1-3 pregnancies (84.2%) and 1-3 live births (92.7%). Hospital deliveries are predominant (92.7%), with caesarean section being the most common mode (49.7%). A notable portion of infants were born preterm (16.8%) and with low birth weight (19.3%). Regarding breastfeeding, most participants currently breastfeed their babies (75.1%), although a sizable minority have experienced difficulties (29.1%), conditions

limiting breastfeeding included maternal illness (22.4%), lack of breast milk (44%), and baby's difficulty in sucking (33.6%). Commonly resorted to formula (67.2%) as an alternative for breastfeeding difficulties.

Table 3: Maternal characteristics of postnatal mother for the study on acceptability of human milk donation and associated factors among postnatal mothers at public hospitals of Addis Ababa, Ethiopia 2024 (n =398).

Variable	Categories	Frequency (n)	Percentage (%)
Number of pregnancy/gravida	1-3	335	84.2
	>+4	63	15.8
Number of life birth/parity	1-3	369	92.7
	>+4	29	7.3
delivery of preterm	Yes	67	16.8
	No	331	83.2
delivery of LBW	Yes	77	19.3
	No	321	81.7
Place of delivery	Hospital	369	92.7
	Health center	29	7.3
Mode of delivery	Normal vaginal delivery	156	39.2
	Instrumental delivery	44	11.1
	Caesarean section	198	49.7
Do you currently BF your baby	Yes	299	75.1
	No	99	24.9
Ever experienced difficulty of BF	Yes	116	29.1
	No	282	70.9

Condition that limited mothers from BF(n=116)	Maternal illness	26	22.4
	Lack of breast milk	51	44
	Baby's difficulty in sucking	39	33.6
Alternative used for difficulty of BF(n=116)	Formula	78	67.2
	cow milk	19	16.4
	Breast milk from another women	19	16.4

5.3. Health care services use of postnatal mother

Table 4 shows that the vast majority have attended antenatal care (ANC) visits (93.2%), from those having visit with a significant number having more than four visits (86.5%). A considerable portion received counseling about breastfeeding during ANC visits (38.8%), while a slightly higher number did not (60.4%), counseling on breastfeeding during delivery and postnatal care was provided to a majority (60.1%), but was absent for a notable number (39.9%). A substantial portion of participants have visited the Neonatal Intensive Care Unit (NICU) before (37.2%).

Table 4: Health care services use of postnatal mother for the study on acceptability of human milk donation and associated factors among postnatal mothers at public hospitals of Addis Ababa, Ethiopia 2024, (n =398)

Variable	Categories	Frequency	Percentage
ANC visit	Yes	371	93.2
	No	27	6.8
Number of ANC visit(n=371)	1-3	50	13.5
	>+4	321	86.5
	Yes	144	38.8

Counseling about BF during ANC visit (n=371)	No	227	61.2
Counseling on BF during delivery and postnatal	Yes	239	60.1
	No	159	39.9
Ever visit NICU before	Yes	148	37.2
	No	250	62.8

5.4 Awareness of postnatal mother about human milk bank and wet nurse

Table 5 indicates that 68.8% of postnatal mothers are familiar with wet nurses, while only 16.8% have breastfed others' infants, and merely 12.8% have fed their newborns breast milk from another mother. Opinion on the utility of collecting and storing breast milk is divided, with 41.2% considering it useful. Awareness of human breast milk banks (HBMB) is notably low at 22.9%, with sources of information including health care providers (41.8%), and media channels (58.2%).

Table 5: Awareness of postnatal mother on acceptability of human milk donation and associated factors among postnatal mothers at public hospitals of Addis Ababa, Ethiopia 2024 (n =398).

Variable	Categories	Frequency (n)	Percentage (%)
Ever heard about wet nurse	Yes	274	68.8
	No	124	31.2
Ever experienced breastfeeding others' infants(n=274)	Yes	48	17.5
	No	226	82.5
Ever feed your new born baby breast milk of another mother(n=274)	Yes	38	13.9
	No	236	86.1

Collecting and storing breast milk is useful	Yes	164	41.2
	No	234	58.8
Ever heard about HBMB	Yes	91	22.9
	No	307	77.1
Where did you hear about HBMB	Health care providers	38	41.8
	Media	53	58.2

5.5 Acceptability of human milk donation

Figure 3 shows that 75.4% of the study participants expressed willingness to donate breast milk if asked by a milk bank, while 24.6% were not willing. From those willing to donate the main reasons for willingness to donate (Figure 4) included supporting mothers and infants in need (53.0%), having excess milk (20.7%), and believing it would not affect their health (26.3%). From those not willing to donate, reasons for not being willing to donate (Figure 5) included fear of disease transmission (33.7%), personal discomfort with the idea (39.8%), religious restrictions (17.3%), fear of genetics mixing (3.1%), and cultural restrictions (6.1%).

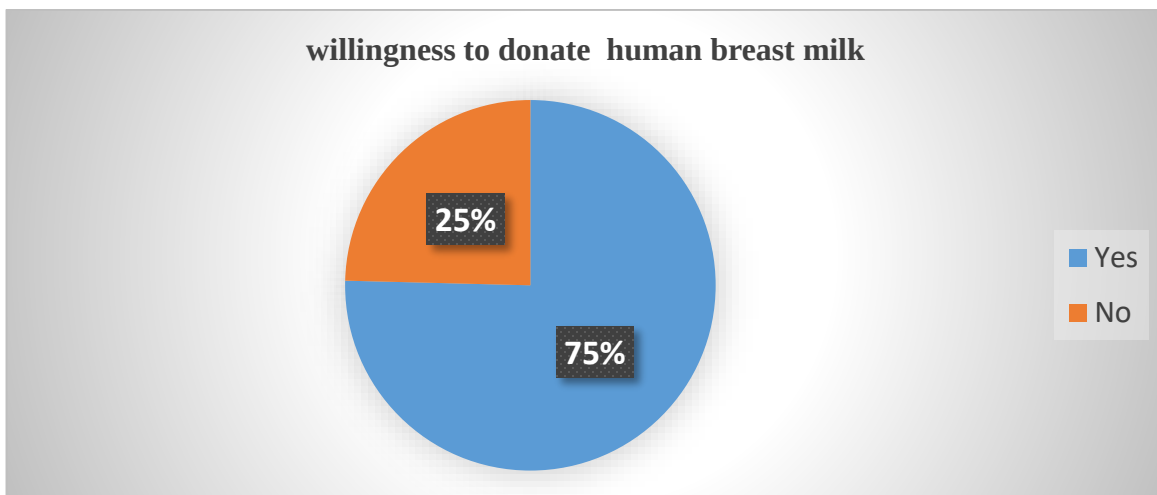


Figure 3: Willingness to donate human breast milk for the study on acceptability of human milk donation and associated factors among postnatal mothers at public hospitals of Addis Ababa, Ethiopia 2024, (n =398).

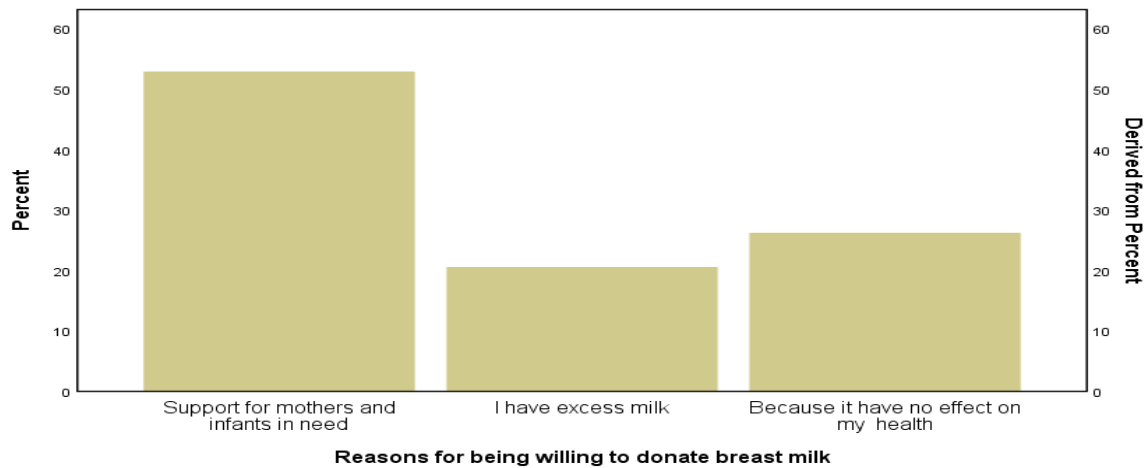


Figure 4: Reason willing for being to donate human breast milk for the study on acceptability of human milk donation and associated factors among postnatal mothers at public hospitals of Addis Ababa, Ethiopia 2024, (n =300).

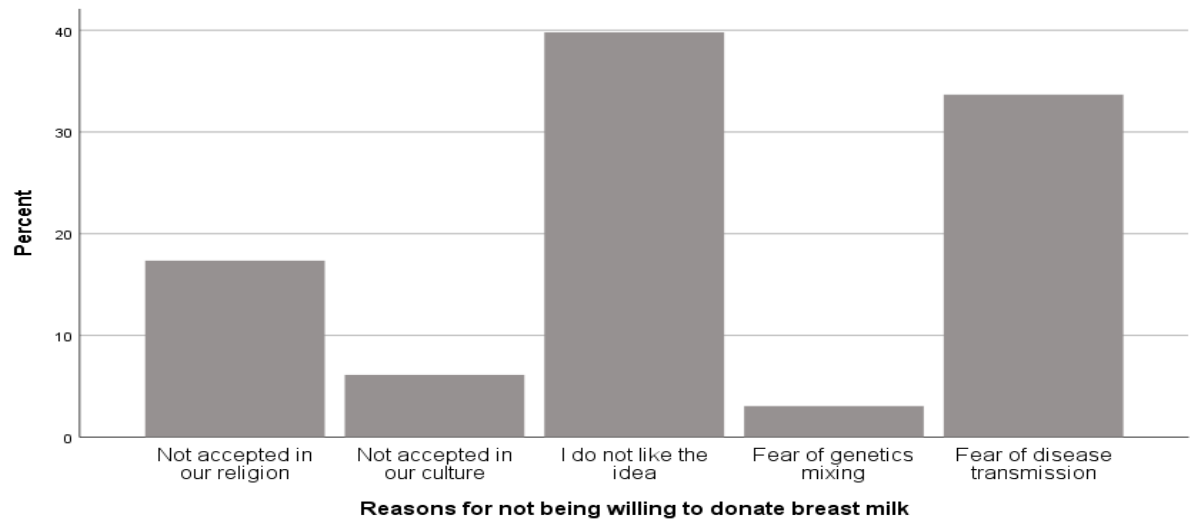


Figure 5: Reason for not willing to donate human breast milk for the study on acceptability of human milk donation and associated factors among postnatal mothers at public hospitals of Addis Ababa, Ethiopia 2024, (n =98).

5.2. Factors associated with acceptability of human milk donation

Bivariable analysis was conducted to investigate factors associated with individuals' willingness to donate human milk. Variables that have associations were observed in the crude bivariable analysis with factors such as awareness of the human breast milk bank, familiarity with wet nurses, previous NICU admission of their baby, and counseling on infant feeding during postnatal care, delivery of a low-birth weight baby, marital status, antenatal visits during pregnancy, and educational status.

In the subsequent multivariable analysis, variables with a p-value < 0.25 in the bivariable analysis were included. Among the identified variables, it was found that awareness of the human breast milk bank, familiarity with wet nurses, previous experience of delivering a low-birth weight baby, and educational status (literate vs. illiterate) were significantly associated with individuals' willingness to donate human milk.

The logistic regression model's overall fit was assessed using the Hosmer-Lemeshow test, yielding a non-significant p-value of 0.740, indicating good model fit.

Table 6 shows that literate mothers were 2.44 times more likely to express willingness to donate compared to those who couldn't read and write (AOR = 2.44, 95% CI: 1.167-5.109). Mothers who had previously delivered a low-birth weight baby showed 2.40 times higher odds of expressing willingness to donate human milk than those who had not (AOR = 2.40, 95% CI: 1.04-5.55). Moreover, mothers aware of wet nurses were more likely to express willingness to donate, with a 2.96 times higher likelihood compared to those who were not familiar with wet nurse (AOR = 2.96, 95% CI: 1.76-4.98). Additionally, mothers who heard about human breast milk banks were 2.69 times more willing to donate compared to those who had not (AOR = 2.69, 95% CI: 1.27-5.67).

Table 6: Factors associated with acceptability of human milk donation among postnatal mothers of Addis Ababa governmental hospital 2024, (n =398).

Variable	Category	Acceptability of human milk donation		COR (95%CI)	AOR (95%CI)
		Yes,n	No, n		
Marital status	Single	11	11	1	
	Divorced	23	22	1.083(0.334, 3.049)	0.761(0.21, 2.71)
	Married	276	75	3.680(1.536, 8.818)*	2.536(0.97, 6.61)
Educational of mothers	Literate	275	81	2.309(1.188, 4.485)*	2.441(1.16, 5.11) *
	Illiterate	25	17	1	
Delivery LBW	Yes	69	90	3.306(1.554, 7.268)**	2.404(1.04, 5.54) *
	No	231	8	1	
Antenatal visit	Yes	284	87	2.244(1.004, 5.017) *	1.811(0.73, 4.47)
	No	16	11	1	
Postnatal counseling on breast feeding	Yes	189	50	1.635(1.032, 2590) *	1.558(0.92, 2.61)
	No	111	48	1	
NICU visit	Yes	121	27	1.778(1.079, 2.930)) *	1.550(0.86, 2.77)
	No	179	71	1	
Wet nurse	Yes	228	46	3.580(2.222, 5.768) ***	2.963(1.76, 4.98) ***
	No	72	52	1	
HBMB	Yes	81	10	3.255(1.163, 6.567) ***	2.686(1.27, 5.67) **

No	219	88	1
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1: Reference category, COR: Crude odd ratio, AOR: Adjusted odd ratio, CI: Confidence interval, LBW: Low birth weight, NICU: neonatal intensive care unit, HBMB: Human breast milk bank* P < 0.05, ** P < 0.01, *** P < 0.001

6. DISCUSSION

This study revealed a substantially high level of willingness (75.4%) among participants to donate breast milk. This finding closely aligns with similar high levels of willingness reported in studies conducted in India, China, Ghana, and Kenya, which ranged from 73.4% to 84.9% (13, 29-31, 37).

These consistent findings across different regions suggest a strong inclination towards altruistic behaviors regarding milk donation. However, notable discrepancies emerge when comparing this result with that of studies conducted in Bangladesh, Italy, and eastern Ethiopia. The study from Bangladesh reported a much lower willingness rate, with only a quarter of participants expressing readiness to donate milk to an unknown baby (27). While the study from Italy found that 56.9% of women were interested in donating their milk (34). The study from eastern Ethiopia reported a particularly stark difference, with just 11% of participants willing to provide breast milk for banking (33). These discrepancies underscore the influence of cultural, socio-economic, and infrastructural factors on donation behaviors. Cultural norms surrounding breastfeeding and milk sharing, perceptions of altruism, and the presence of established milk banking infrastructure likely contribute to these variations. Understanding these contextual factors is essential for tailoring interventions to promote human milk donation effectively and address barriers to donation in diverse populations. This requires employing a qualitative study for in-depth exploration of the issue from the perspectives of the mothers.

The finding of this study literate individuals were 2.44 times more likely to express willingness to donate human milk compared to illiterate individuals resonates with research from China, which highlighted the strong predictive power of women's education level in determining their inclination to donate milk (42). This association underscores the profound influence of education on altruistic behaviors, suggesting that educational initiatives could serve as a catalyst for promoting milk donation. By emphasizing the importance of education in fostering altruism, interventions aimed at increasing literacy rates could effectively inspire greater participation in milk donation efforts.

This study unveils a significant association between history of delivering a low-birth-weight baby and the propensity to donate human milk, as indicated by the odds ratio (AOR) of 2.40.

This suggests that individuals who have experienced the challenges associated with low-birth-weight infants are markedly more inclined to express willingness to donate human milk compared to those without such experiences. Remarkably, this finding aligns with prior research conducted in China, which similarly identified low birth weight as a predictor of milk donation (42). Together, these insights emphasize the influential role of personal experiences, such as delivering a low-birth-weight baby, in shaping altruistic behaviors, highlighting the importance of considering such factors in understanding and addressing donation motivations.

This study reveal a notable a significant association between awareness of wet nurses and the willingness to donate or accept human milk, as evidenced by the research conducted, with mothers who possess aware of wet nursing demonstrating a higher likelihood of engaging in milk donation compared to those who lack familiarity. This association is further substantiated by parallel studies in Uganda and eastern Ethiopia, where women who were aware of wet nursing exhibited significantly increased odds of accepting human milk donation (33, 39). The consistent prevalence of this trend across diverse cultural contexts underscores the pivotal role of cultural familiarity in shaping attitudes towards milk donation.

Additionally, the odds of willingness to donate human milk were times higher among mothers who had heard about the human breast milk bank compared to those who had not. This finding mirrors research in eastern Ethiopia, where women familiar with human milk banks (HMBs) and milk donation were more likely to express willingness to donate breast milk (33). These results underscore the importance of awareness of human milk banks in shaping attitudes towards milk donation and suggest that targeted education initiatives could play a significant role in promoting altruistic behaviors within communities.

7. STRENGTH AND LIMITATION

7.1 Strength

This study addresses an important and timely topic within the context of public health by examining the willingness to donate human milk among postnatal mothers in public hospitals of Addis Ababa, even before the establishment of a formal milk bank. As Ethiopia moves towards establishing a milk bank to address the nutritional needs of vulnerable infants, understanding the factors influencing milk donation behaviors becomes increasingly relevant. By proactively investigating this topic prior to the establishment of a milk bank, the study provides valuable baseline information that can inform the development and implementation of effective donation programs and policies.

7.2 Limitation

The acceptability of human milk donation was assessed using only one question, as a single question may not capture the full range of their acceptability of human milk donation.

While focusing solely on postnatal mothers within public hospitals offers valuable insights, the exclusion of health centers and private hospitals may restrict the generalizability of the findings.

Furthermore, the absence of qualitative research within the study design hinders the depth of understanding regarding the cultural, social, and personal factors influencing acceptance to donate human milk among postnatal mothers and the study design of this research does not allow for the establishment of cause-and-effect relationships.

8. CONCLUSION AND RECOMMENDATION

8.1. Conclusion

The acceptability of milk donation among the study participants was 75%. Several factors were associated with this acceptability. Literate mothers, those who had previously delivered a low-birth weight baby, and mothers aware of wet nurses were more likely to express willingness to donate. Additionally, mothers who had heard about human breast milk banks showed a higher likelihood of willingness to donate.

8.2. Recommendation

Prior to establishing a milk bank in Ethiopia, several key responsibilities must be addressed. The Minister of Health should develop and implement targeted educational programs to raise awareness and promote milk donation. These programs need to be accessible to diverse populations, especially those with lower literacy levels. Healthcare professionals' play a crucial role by integrating milk donation counseling into patient care and participating in specialized training programs to enhance their knowledge and communication skills regarding milk donation. Meanwhile, researchers should conduct further qualitative research to explore cultural and social factors influencing milk donation.

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ANNEXES

Appendix A: Information sheet

Hello. My name is _____ and I am data collector of the study conducted by Eyerus Mekonnen master's student at Addis Ababa University College of health Science, School of nursing and midwifery, department of nursing. It is for partial fulfillment of master's science in neonatal nursing. I would very much appreciate your participation in this study. The information you provide will help to know the acceptability of human milk donation and what factors affect the acceptance to donate breast milk. The interview will take between 15-25 minutes to complete.

Name of the organization: Addis Ababa University, College of Health Sciences, School of nursing and midwifery, Department of Nursing.

Name of the Sponsor: Addis Ababa University

Title of the study: Acceptability of human milk donation and associated factors among postnatal mothers at public hospitals of Addis Ababa, hospitals, 2024.

Purpose: The purpose of this study is to assess Acceptability of human milk donation and associated factors among postnatal mothers. The collected information will be essential, not only for the successful accomplishment of the study but also for producing relevant information which will help to implement interventions to achieve effective health care response for infant feeding

Risks and benefits of the study: There is no any salary that you are going to get by involving in this study, but your participation has great deal in order to get good information about acceptability of human milk donation that helps to implement interventions to achieve effective health care response for infant feeding. It has no any risk unless consuming of your time.

Confidentiality: Your name will not be written on this form and no individual response will be reported to anybody. Hence, your answers are completely confidential

Participant rights: You have the full right to refuse from participating in this study. You have also the full right to withdraw from this study at any time you wish to. Refuse to participate had no penalty or loss of benefits to gain any health service.

Persons to contact for further information: If you have any question you can contact the principal investigator in the following address:

Eyerus Mekonnen **Mobile:** +251 923702120 **E-mail:** eyerusme6@gmail.com.

➤ Are you willing to participate in the study?

- Yes..... proceed to the next page.
- No..... please stop here.

Thank you very much!

Appendix: B

Consent form

I understood all conditions stated above. I am informed that there is no any direct benefit or payment for the participants. I have also understood that participating in this study is entirely voluntarily and there is no any human threatens condition. I understood that the answers to the questions will not be given to anyone else. Hence, I agree to participate in the research voluntarily.

Signature_____

Date_____

Appendix: C

Questionnaire

This questionnaire is prepared for the collection of socio-demographic characteristics, maternal characteristics, health care services, awareness and acceptability of human milk donation, and associated factors at Saint Paul's, Black Lion, Zewiditu Memorial, and Yekatit Asrahulet hospitals, Addis Ababa, Ethiopia

Date___month_____Year_____ Name of the Hospital _____
_____ Questionnaire ID number_____

1. Socio demographic characteristics postnatal mothers

s.no	Questions	Response
101	What is your age?	_____ years
102.	Where is your residence?	1. Urban 2. Rural
103.	What is your religion?	1.Orthodox 2. Muslim 3. Protestant 4. Catholic 5. Other specify
104.	What is your educational status?	1,literate 2, illiterate
105.	What is your current marital status?	1.Single 2. Married 3. Divorced
106.	What is your current occupation?	1. House wife 2. Self-employed 3. Government employed 4. Private employed 5. Other specify
107.	What is the educational status of your partner?	1,literate 2, illiterate

108.	What is your partner's current occupation?	1. Self-employed 2. Government employed 3. Private employed 4. Other specify
109.	What is your monthly family income?	1. < 2000 2. 2000-3000 3. 3000-5000 4. >5000

2. Maternal characteristics postnatal mothers

s.no	Question	Response
201.	How many times have you been pregnant?	_____
202	How many live births do you have?	_____
203	Did you deliver a preterm baby before?	1. Yes 2. No
204	If yes, which alternative did you use to feed your baby?	1. Expressing your own breast milk 2. Formula milk 3. Breast milk from another women was used 4. cow milk was used 5. Soft food made of cereals 6. Other specify

205	Did you deliver a low-birth weight baby before?	<ol style="list-style-type: none"> 1. Yes 2. No
206	If yes, What was the weight of the baby?	_____
207	What did you use to feed your baby?	<ol style="list-style-type: none"> 1. Expressing your own breast milk 2. Formula milk 3. Breast milk from another women was used 4. cow milk was used 5. Soft food made of cereals 6. Other specify
208	Where did you deliver your baby?	<ol style="list-style-type: none"> 1. Hospital 2. Health center 3. Home
209	What was the mode of delivery?	<ol style="list-style-type: none"> 1. Normal Vaginal delivery 2. Instrumental delivery 3. Caesarean section
210	Do you currently breastfeed your baby?	<ol style="list-style-type: none"> 1. Yes 2. No
211	Did you have any difficulty breastfeeding before?	<ol style="list-style-type: none"> 1. Yes 2. No
212	What was the problem you had?	<ol style="list-style-type: none"> 1. Maternal illness 2. Lack of breast milk 3. Pain during breastfeeding 4. Baby's difficulty in sucking

		5. Other specify
213	If yes, What do you feed your baby?	1. Breast milk from another women was used 2. Infant formula was used 3. cow milk was used 4. Soft food made of cereals 5. Other specify

3. Health care services used of postnatal mothers

301	Did you have Antenatal visits during your pregnancy?	1. Yes 2. No
302	If yes, How many times you had antenatal visits?	1. < 4 visits 2. 4 visits
203	Did you receive counseling about breastfeeding during your antenatal visits?	1. Yes 2. NO
304	Did you receive counseling about infant feeding during postnatal care and delivery?	1. Yes 2. No
305	Did you have a baby admitted to the Neonatal Intensive Care Unit before?	1. Yes 2. No

4. Awareness of postnatal mother on human milk banking and Wet Nurse

s.no	Question	Response
------	----------	----------

401.	Do you heard about a wet nurse before?	1. Yes 2. No
402.	If yes, Did you feed breast milk to your neighbor's or relative's baby when the baby's mother was unable to breastfeed?	1. Yes 2. No
403.	If yes, Did you feed your newborn baby the breast milk of another mother when you were unable to breastfeed?	1. Yes 2. No
404	Do you think collecting and storing breast milk is useful?	1. Yes 2. No
405	Did you hear about the human breast milk bank?	1. Yes 2. No
406	If yes, Where did you hear about it?	1. Staff at clinics/hospitals 2. Media (news, newspaper, social media) 3. Talk within the community and/or with friends/family 4. Other specify

5. Acceptability of human milk donation among postnatal mothers

s.no	Question	Response
501.	Are you willing to donate breast milk if the milk bank asks you for a donation?	1. Yes 2. No
502.	If yes, what are the main reasons for being willing to donate breast milk?	1. To help others 2. I have excess milk 3. Because it have no effect on my health 4. Support for mothers and infants in need

		5. Other specify
503.	If no, what are the main reasons for not being willing to donate breast milk?	1. I do not like the idea 2. Not accepted in our religion 3. Not accepted in our culture 4. Fear of disease transmission 5. Fear of genetics mixing 6. Other specify

አባሪ 4፡ የመረጃ ቅጥያዎች

ሰላም እኔ.....የተባልኩ በአዲስ አበባ ዩኒቨርሲቲ፣በጤናሳይንስ ኮሌጅ፣በነርቢንግና በሚድዋይፈሪ ት/ት ክፍል የማስተርስ ተማር በሆነችው እየሩስ መኮንን አማካኝነት በሚከናወነው ጥናትና ምርምር ላይ መረጃ ሰብሳቢ ሁኔ እይሰራሁ እገኘዋለሁ።የእርሶዎን ተሳትፎ በጣም እናበረታታለን። እርሶዎ የሚሰጡት መረጃ እናቶች የሰውን የጡት ወተት ለመለገስ ያላቸውን ፍላጎት እና ከፍላጎታቸው ጋር ተያያዥነት ያላቸውን ምክንያቶች እንድናውቅ ይረዳናል። ቃለ መጠይቁ ለማጠናቀቅ ከ15-25 ደቂቃዎች ይወስዳል።

የተቋሙ ስም፡ አዲስ አበባ ዩኒቨርሲቲ፣ጤናሳይንስ ኮሌጅ፣የነርቢንግ እና ሚድዋይፈሪ ት/ት ክፍል **የድጋፍ ሰጪ ተቋም ስም፤** አዲስ አበባ ዩኒቨርሲቲ

የጥናቱ ርእስ፤ በድህረ ወሊድ እናቶች የእናትን የጡት ወተት ለመለገስ ፈቃደኝነት እና በፍቃደኝነት ላይ በቀጥታም ሆነ በተዘዋዋሪ ተጽኖ የሚያመጡ ተያያዥ ነገሮችን የሚዳሰሰ ጥናት ነው። ጥናቱ በአዲስ አበባ የመንግት ሆስፓሎች ውስጥ በ2024 ዓ.ም ይካሄዳል።

ዓላማ፡ የዚህ ጥናት ዓላማ በድህረ ወሊድ እናቶች የእናትን የጡት ወተት ለመለገስ ፈቃደኝነት እና በፍቃደኝነት ላይ በቀጥታም ሆነ በተዘዋዋሪ ተጽኖ የሚያመጡ ተያያዥ ነገሮችን የሚዳሰሰ ጥናት ነው። የተሰበሰበው መረጃ ለጥናቱ ስኬታማነት ብቻ ሳይሆን ጠቃሚ መረጃዎችን ለማውጣትም አስፈላጊ ነው ይህም ለጨቅላ ህጻናት አመጋገብ ውጤታማ የጤና አጠባበቅ ምላሽ ለማግኘት የሚረዱ እርምጃዎችን ተግባራዊ ለማድረግ ይረዳል።

የጥናቱ ስጋቶች እና ጥቅሞች፡ በዚህ ጥናት ውስጥ በመሳተፍ የሚያገኙት ምንም አይነት ክፍያ የለም፤ ነገር ግን የናንተ ተሳትፎ ትልቅ ጠቀሜታ ስላለው የሰው ወተት ባንክ ተቀባይነትን በተመለከተ ጥሩ መረጃ ለማግኘት እና ውጤታማ ለመሆን የሚረዳ ነው። ለ ጨቅላ ህጻናት አመጋገብ ውጤታማ የሆነ የጤና አጠባበቅ ምላሽ ለመተግበር የሚረዳ ነው። ጊዜዎን ካልወሰዱ በስተቀር ምንም አይነት አደጋ የለውም።

ምስጢራዊነት፡ ስምዎ በዚህ ቅጽ ላይ አይጻፍም እና ምንም አይነት ምላሽ ለማንም

አይነገርም። ስለዚህ፣ የእርስዎ መልሶች ሙሉ በሙሉ ሚስጥራዊ ናቸው።

የተሳታፊ መብቶች፡ በዚህ ጥናት ውስጥ ለመሳተፍ ሙሉ መብት አልዎት። እንዲሁም በማንኛውም ጊዜ ከዚህ ጥናት ማቆርጥ ሙሉ መብት አልዎት። ለመሳተፍ ፈቃደኛ አለመሆን ምንም አይነት ቅጣት ወይም የህክምና አገልግሎት ማጣትን አያስከትልም።

ማንኛውም አይነት ጥያቄ በሚከተለው አድራሻ ማነጋገር ይችላሉ።

እየሩሳሌም መኮንን ሞባይል፡ +251 923702120 ኢሜል፡ eyerusme6@gmail.com

☐ በጥናቱ ለመሳተፍ ፈቃደኛ ነዎት?

- አዎ..... ወደ ቀጣዩ ገጽ ቀጥል.
- አይ..... እባኮትን እዚህ ያቁሙ።

በጣም አመሰግናለሁ!!

አባሪ 5: የውል ስምምነት እና የእናቶች ፈቃድ ቅጽ

ከላይ የተጠቀሱትን መረጃዎች በሙሉ ተረድቻለሁ። በዚህ ጥናት ላይ መሳተፍ በሙሉ ፈቃደኝነት እንደሆነም ተነግሮኛል። በጥናቱ መሳተፍ ቀጥነኛ የሆነ ጥቅም ወይም ክፍያ እንደሌለው ተረድቻለሁ። እንደተነገረኝ ከሆነ የምሰጠው መልስ ለሌላ ለማንም ሰው አይሰጥም፤ እንዲሁም ስለኔማንነት ለማንም አይገለፅም። ስለሆነም በጥናቱ ላይ ለመሳተፍ ፍቃደኛ ነኝ። ስለዚህም በፈቃደኝነት በጥናቱ ለመሳተፍ ተስማምቻለሁ።

ፊርማ _____

ቀን _____

አባረ 6፡ የአማረኛ ቅጂ መጠይቃዎች

ይህ ቃለ መጠይቅ ለጥናቱ አስፈላጊ የሆኑ መረጃዎችን ለመሰብሰብ በጥናቱ ባለቤት የተዘጋጀ ሲሆን የሚከተሉትን የመረጃ ሀሳቦች ያካትታል። ማህበረሰባዊ እና ግላዊ ጥያቄዎች፣ የእናቶች የወሊድ እና የጤና እንክብካቤ አገልግሎት ጥያቄዎች፣ የግንዛቤ ጥያቄዎች እና የሰው ወተት ልገሳ ተቀባይነት የሚያስሱ ጥያቄዎች። ጥናቱ የሚካሄደውም ባዲስ አበባ ከተማ በሚገኙ የመንግስት ሆስፒታሎች ውስጥ ነው። እነሱም፤ ቅዱስ ጳውሎስ፣ ጥቁር አንበሳ፣ ዘውዲቱ መታስቢያ እና የካቲት አስራ ሁለት ሆስፒታል ።

ቀን _____ ወር _____ ዓመት _____

የሆስፒታሉ _____ ፊርማ _____ የሚስጥር ቁጥር _____ -

ክፍል 1፡ማህበረሰባዊ እና ግለዊ ጥያቄዎች

ተ.ቁ	ጥያቄዎች	ምላሽ	
101	እድሜዎ ስንት ነው?	_____ ዓመት	
102.	የመኖሪያ ቦታ	1. ከተማ 2. ገጠር	
103.	የሚከተሉት ኃይማኖት ?	1. ኦርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ካቶሊክ 5. ሌሎች ይግለጹ	
103.	የትምህርት ደረጃዎ ?	1. ተምሪያለሁ 2. አልተማራካም	
104.	የጋብቻ ሁኔታ	1. ያላገባች 2. ባለትዳር 3. አግብታ የፈታች 4. ባል የሞተባት	
105.	የስራ ሁኔታዎ ?	1. የቤት እመቤት 2. የገል ስራ 3. የመንግስት ሰራተኛ 4. መንግስታዊ ያልሆነ ድርጅት ሰራተኛ 5. ሌላ ከሆነ ይጠቀሱ_	

106.	የባለቤትዎ የትምህርት ሁኔታ	ተምረል አልተማራም	
107.	የባለቤትዎ የስራ ሁኔታ ?	1. የግል ስራ 2. የመንግስት ሰራተኛ 3. መንግስታዊ ያልሆነ ድርጅት ሰራተኛ 4. ሌላ ከሆነ ይጠቀሱ_____	
108.	ወርሃዊ የቤተሰብ ገቢ	5. < 2000-ብር 6. 2000-3000 ብር 7. 3000-5000-ብር 8. >5000-ብር	

ክፍል 2፡የእናቶች ክወሊድ የተያያዙ ጥያቄዎች

ተ.ቁ	ጥያቄዎች	ምላሽ	
201.	ስንት እርግዝና ነበሮት ?	_____	
202	ስንት ልጅ በሕይወት ወለዱ ?	_____	

203	ካሁን በፊት የመወለጃ ቀኑ ያልድርሰ ልጅ ወልደው ያውቃል?	1. አዎ 2. አይ	አይ ካሉ ጥ.ቁ 204ን ይለፉት
204	ልጅዎን ለመመገብ የትኛውን አማራጭ ተጠቅመዋል?	1. የሌላ እናት ጡት ወተት 2. የቆረቆሮ ወተት 3. የላም ወተት 4. ከጥራጥሬ የተሰራ ለስላሳ ምግብ 5. ሌላ ከሆነ ይጠቀሱ	
205	ዝቅተኛ ክብደት ያለው ልጅ ወልደው ያውቃል?	1. አዎ 2. አይ	አይ ካሉ ጥ.ቁ 206ን ይለፉት
206	አዎ ካሉ ክብደ ስንት ነበር?	_____	
207	ልጅዎን ለመመገብ የትኛውን አማራጭ ተጠቅመዋል?	1. የሌላ እናት ጡት ወተት 2. የእራስዎን የጡት ወተት 3. የቆረቆሮ ወተት 4. የላም ወተት 5. ከጥራጥሬ የተሰራ ለስላሳ ምግብ 6. ሌላ ከሆነ ይጠቀሱ	
208	ልጅዎትን የት ነው የወለዱት?	1. ሆስፒታል 2. ጤና ጠብያ 3. ቤት	

209	የአሁኑን ልጆቻችን በምንድን ነው-የወለዱት?	1. በተፈጥሮ ምጥ/በምጥ 2. በመሳርያ 3. በቀዶ ጥገና	
210	በአሁኑ ጊዜ ልጆቻችን ጡት እያጠቡ ነው?	1. አዎ 2. አይ	
211	ክዚ በፊት የጡት ማጥባት ችግር አጋጥሞታል ያዉቃል?	1. አዎ 2. አይ	የለም ካሉ ጥ.ቁ 212እና 213ን ይለፉት
212	አዎ ካሉ ጡት ማጥባት የገድበውት ሁኔታ ?	1. በ ህመም ሁኔታ 2. የጡት ወተት እጥረት 3. ሌላ ከሆነ ይጠቀሱ	
213	የ ጡት ማጥባት ችግር በገጠሞት ጊዜ ጥቅም ላይ የዋሉት አማራጭ	1. የ ሌላ እናት ጡት ወተት 2. የቆረቆሮ ወተት 3. የላም ወተት 4. ከጥራጥሬ የተሰራ ለስላሳ ምግብ 5. ሌላ ከሆነ ይጠቀሱ	

ክፍል 3፡ የጤና እንክብካቤ አገልግሎት ጥያቄዎች

301	በ አካሉ እርግዝናዎ ወቅት የቅድመ ወሊድ አገልግሎት አግኝተዋል?	1. አዎ 2. አይ	አይ ካሉ ጥ.ቁ302 እና 303ን ይለፉት
302.	ስንት ጊዜ የቅድመ ወሊድ አገልግሎት አግኝተዋል?	1. 4 ጊዜ ያንሳል 2. 4 ጊዜ	
303	በቅድመ ወሊድ አገልግሎት ወቅት ስለ ህጻናት አመጋገብ ምክር ተሰጥቶዎታል?	1. አዎ 2. አይ	
304	የጨቅላ ህጻናት ከፍተኛ እንክብካቤ ክፍልን ለልጅዎ ህክምና ገብተዉ ያውቃሉ?	1. አዎ 2. አይ	
305	በድህረ ወሊድ እንክብካቤ እና በወሊድ ወቅት፣ ስለ ህጻናት አመጋገብ ምክር ተሰጥቶዎታል?	1. አዎ 2. አይ	

ክፍል 4፡ የ ግንዛቤ ጥያቄዎች

ተ.ቁ	ጥያቄዎች	ምላሽ	
401.	የሌላ ልጅን ጡት ስለማጥባት ሰምቶ አያውቃሉ?	1. አዎ 2. አይ	አይ ካሉ ጥ.ቁ 402 እና 403ን ይለፉት
402.	እናት ጡት ማጥባት ሳትችል ስትቀር ለጎረቤት ወይም ለዘመድ ልጅ ጡት አጥብትሽ ታውቃለሽ?	1. አዎ 2. አይ	

403.	ጡት ማጥባት በማይችሉበት ጊዜ ልጅዎ የሌላ እናት ጡት ጠብቶ ያውቃል?	1. አዎ 2. አይ	
404.	የጡት ወተት አልቦ ማስቀመጥ ጠቃሚ ነው ብለው ያስባሉ?	1. አዎ 2. አይ	
405	ስለ የጡት ወተት ባንክ ሰምተዉ ታውቃሉ?	1. አዎ 2. አይ	አይ ካሉ ጥ.ቁ 406ን ይለፉት
406	ክየት ሰሙ?	1. ክጤና ተቁም ሠራተኞች 2. ሚዲያ (ዜና፣ ጋዜጣ፣ ማህበራዊ ሚዲያ) 3. ክማህበረሰቡ ውስጥ እና/ወይም ከጓደኞች/ቤተሰብ 4. ሌላ ከሆነ ይጠቀሱ	

ክፍል 5: የሰው ወተት ልገሳ ተቀባይነት የሚያስሱ ጥያቄዎች

ተ.ቁ	ጥያቄዎች	ምላሽ	
501.	የወተት ባንክ ልገሳ ከጠየቅኩ የጡት ወተት ለመለገስ ፈቃደኛ ነወት ?	1. አዎ 2. አይ	አይ ካሉ ጥ.ቁ 502 ይለፉት

502.	የጡት ወተት ለመለገስ ፈቃደኛ የሚሆኑበት ዋና ምክንያቶች ምንድን ናቸው?	<ol style="list-style-type: none"> 1. የሌሎችን ልጅዎችን ለመርዳት 2. ከመጠን በላይ ወተት አለኝ 3. በጤንነቴ ላይ ምንም ተጽእኖ ስለሌለው 4. የሌሎችን ልጅዎችን እናት ለመርዳት 5. ሌላ ከሆነ ይጠቀሱ 	
503.	ፈቃደኛ ያልሆኑበት ምክንያቶች ምንድን ናቸው?	<ol style="list-style-type: none"> 1. ሀሳቡን አልወደውም 2. በሀይማኖታችን ተቀባይነት የለውም :: 3. በባህላችን ተቀባይነት የለውም:: 4. የበሽታ መተላለፍን በመፍራት 5. የዘርመል ቅልቅል ብመፍራት 6. ሌላ ከሆነ ይጠቀሱ 	