HARAMAYA UNIVERSITY

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Obstetric Danger Signs Experience and Associated Factors among Women Who Gave Birth in Harar Town, Eastern Ethiopia

Msc Thesis

Endashaw Almaw (BSC)

December, 2025

Harar, Ethiopia

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College: Health and Medical science

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Program: Maternity and Neonatal Nursing

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A Thesis Submitted to the School of Nursing, Post Graduate Studies Haramaya University, in the Partial Fulfillment of the Requirement for the Degree of Masters in Maternity and Neonatal Nursing.

December, 2025

Harar, Ethiopia

APPROVAL SHEET

HARAMAYA UNIVERSITY

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I hereby certify that I have read and evaluated this thesis entitled Obstetric Danger Signs Experience and Associated Factors among Women who gave birth in Harar Town', Eastern Ethiopia' prepared under my guidance by Endashaw Almaw. I recommend that it will be submitted as fulfilling the thesis requirement.

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As a member of the Board of Examiners of the M.Sc. Thesis Open Defense Examination, I certify that I have read and evaluated the Thesis prepared by Endashaw Almaw and examined the candidate. I recommend that the Thesis be accepted as fulfilling the Thesis requirements for the degree of Master's in Maternity and Neonatal Nursing.

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By my signature below, I declare and affirm that this Thesis is my work. I have followed all the ethical principles of scholarship in the preparation (proposal work), data collection, data analysis and completion of this thesis. All scholarly matters that are included in the Thesis have been given recognition through citations. I affirm that I have cited and referenced all sources used in this document. Every serious effort has been made to avoid any plagiarism in the preparation of this Thesis. This Thesis is submitted in partial fulfillment of the requirement for a degree of Master of sciences to SGS at Haramaya University.

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BIOGRAPHICAL SKETCH

I was born in December 29, 1995 in Azmach, Awi zone, Ethiopia. I attended my primary and secondary education at Azmach elementary, Adis kidam preparatory and secondary school, respectively. I graduated with BSc degree in midwifery from Haramaya University in 2018 and was serving as a a junior clinical staff at Hiwot fana comprehensive an specialized university hospital until I joined MSC in Maternity and Neonatal Nursing program in October 2023.

ACKNOWLEDGMENTS

I would like to express my deepest gratitude to Haramaya University, College of Health Medical Sciences for giving me the chance to conduct this thesis. I gratefully acknowledge my advisors Mr. Dawit Tamiru and Dr. Merga Dheresa for their constructive comments, guidance, and feedback in the course of preparing this thesis. Last but not least, my heartfelt thanks go to data collectors, supervisors, and study participants.

Contents

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

ANC Antenatal Care

AOR Adjusted odds ratio

CI Confidence Interval

EDHS Ethiopian Demographic and Health Survey

JHPIEGO Johns Hopkins program for international education in Gynecology and Obstetrics

MMR Maternal mortality ratio

ODS Obstetric Danger Sign

PCC Preconception care

PNC Post-natal care

PROM Premature Rupture of Membrane

SPSS Statistical Package for Social Sciences

SRS Simple Random Sampling

TT Tetanus toxoid

WHO World Health Organization

ABSTRACT

Background: Obstetric danger signs are early indicators of complications during pregnancy, childbirth, and in the postpartum period. Prior studies were limited to women's awareness on obstetric danger signs, but not on their prevalence. Therefore there is a need for evidences to assess its prevalence and identify associated factors to improve the provision of care.

Objective: This study aimed to assess the prevalence of obstetric danger signs and associated factors among women who gave birth in the past twelve months in Harar town, Eastern Ethiopia, from June 1 to 30, 2024.

Method: A community-based cross-sectional study was conducted among 582 women. Data were collected through face-to-face interviews. The data were entered into Epi Data version 4.6 and then exported to SPSS version 26 for analysis. Descriptive statistics were used to summarize the participants' characteristics through frequency tables and figures. Binary logistic regression was employed to identify factors associated with experiencing obstetric danger signs. Associations were expressed using adjusted odds ratios (AOR) along with 95% confidence intervals (CI). A p-value < 0.05 was considered statistically significant.

Result: Out of 588 women, 582 (98.9%) participated in the study. Among them, 178 women (30.6%, 95% CI: 26.9–34.5) experienced at least one obstetric danger sign during pregnancy, childbirth, or the postpartum. Factors significantly associated with experiencing at least one danger sign included being under the age of 20 [AOR = 4.84; 95% CI (1.60, 14.67)], preconception care utilization[(AOR = 0.43; 95% CI (0.24, 0.77)], unplanned pregnancy [AOR = 2.69; 95% CI (1.51, 4.80)], late initiation of antenatal care [AOR = 2.37; 95% CI (1.48, 3.78)], good knowledge about obstetric danger signs [AOR = 3.60; 95% CI (2.27, 5.72)], and having a preexisting medical illness [AOR = 4.93; 95% CI (2.54, 9.56)].

Conclusion: One third of women were experienced at least one obstetric danger signs. Promoting early antenatal and preconception care are essential for preventing obstetric complications.

Keywords: Obstetric danger signs experience, associated factors, Harar, Ethiopi

1. INTRODUCTION

1.1 Background

Obstetric danger signs (ODS) are common symptoms that are easily identified by non-clinical personnel. These are not the actual obstetric complications, but rather early indicators of potential complications. A woman can experience these danger signs any time during pregnancy, childbirth, and/or in the postpartum period (JHPIEGO, 2004). The key ODS during pregnancy include vaginal bleeding, swollen hands/face, and blurred vision. Excessive vaginal bleeding, prolonged labour, convulsions, and retained placenta are the key ODS during labour and delivery. The key danger signs during the postpartum period also include excessive vaginal bleeding, foul-smelling vaginal discharge, and high-grade fever (Thaddeus and Maine, 1994, JHPIEGO, 2004). These signs are common, easy to recognize, and associated with potentially severe obstetric problems and usually predictive of poor outcomes, which result in potentially severe maternal and perinatal morbidity and mortality (WHO, 2015, 2019).

About 73% of all maternal deaths were due to direct obstetric causes (WHO, 2023). Postpartum hemorrhage, pre-eclampsia and eclampsia, pregnancy-related infections, and complications from unsafe abortions are among the most common direct obstetric causes of maternal death. The majority of these causes are preventable with timely and appropriate care. ODS are early symptoms that help us to recognize obstetric complications early (WHO, 2023). Obstetric danger signs during pregnancy are considered those symptoms and signs experienced by a pregnant, laboring, or postpartum woman that, when neglected, could endanger her pregnancy, leading to adverse maternal and perinatal outcomes. Fortunately, most obstetric complications are prevented or managed if the woman can identify obstetric danger signs and seek appropriate obstetric care in a timely manner (JHPIEGO, 2004, WHO, 2019).

It is difficult to predict which pregnant, delivering, or post-delivery women will experience danger signs with the notion that every pregnancy is at risk of complications (Geleto *et al.*, 2019, Abu-Shaheen A., AlFayyad, I., Heena, H., Nofal, A. and Riaz, M.,, 2022). Evidence has shown that the causes of this maternal death are preventable and treatable with timely access to appropriate emergency obstetric care services (Ameh and van den Broek, 2015). The central role in preventing

and minimizing the risks of obstetric complications and deaths is early identification of obstetric danger signs and promoting health-seeking behaviors (Tlebere *et al.*, 2007).

1.2 Statement of the Problem

Globally, an estimated 287,000 women died in 2020 from complications related to pregnancy and childbirth, with sub-Saharan Africa accounting for nearly 70% of these deaths (WHO, 2025). In Ethiopia, the maternal mortality ratio (MMR) is 195 deaths per 100,000 live births (WHO, 2025). In Ethiopia, the maternal mortality ratio (MMR) is 195 death per 100,000 live births (WHO, 2023). The magnitudes of obstetric danger signs experienced ranged from 8 to 36 percent, and in Ethiopia, it ranged from 8 to 41 percent (Terefe *et al.*, 2020, Kebede *et al.*, 2021, Abu-Shaheen Amani *et al.*, 2022, Abebe *et al.*, 2023). A considerable proportion of these deaths is linked to the failure to recognize and respond promptly to obstetric danger signs (ODS) during pregnancy, childbirth, and the postpartum period. Obstetric danger signs are not complications themselves but are symptoms that serve as important warning signals for potentially life-threatening conditions (JHPIEGO, 2004).

Every pregnant woman faces the risk of sudden, unpredictable complications that could end up with death or injury to herself and/or to her baby. These deaths arise from pregnancy, childbirth, or postpartum complications (WHO, 2023). If obstetric danger signs are not recognized at an earlier stage, the mother and the fetus suffer from many adverse effects (Hailu *et al.*, 2011, EDHS, 2016). For instance, severe bleeding remains the common contributing factor to one-third of maternal deaths, and it can lead to hypovolemic shock, anemia, and/or death of the mother (Lankoande *et al.*, 2016). Maternal hypertension or fever can lead to increased numbers of neonatal deaths or prematurely born babies who may eventually die due to inadequate facilities to care for them (Turbeville and Sasser, 2020).

Free health care services for antepartum, intrapartum, and postpartum care are the key strategies designed by the WHO and the Ethiopian government to reduce maternal morbidity and mortality by enhancing easy access and timely use of skilled maternal and neonatal health care (WHO, 2025). The SDG for 2030 aimed to reduce global maternal deaths from preventable causes to <70 per 100,000 live births.

Knowing the magnitudes of ODS helps in early identification and management of obstetric complications, which is important to reduce preventable maternal and perinatal morbidity and

mortality (WHO, 2019, 2023). Furthermore, determining prevalence of obstetric danger signs at a community level highlights the hidden morbidity and subsequent complications. So evidence-based data is critical for informing decision-makers about the development and implementation of appropriate interventions and strategies to improve women's health seeking behavior (Mesele and Anmut, 2022).

Available evidences showed that age of the women (Machano and Joho, 2020), educational status, occupational status(Abu-Shaheen Amani *et al.*, 2022), number of antenatal care visit, parity, place of birth, mode of childbirth, Short inter-pregnancy intervals (Mohammed *et al.*, 2023, Worku *et al.*, 2023) are some of the factors associated with the experience of obstetric danger signs.

The previous studies conducted in Ethiopia were on women's awareness about obstetric danger signs and did not assess their real experience of obstetric danger signs (Geleto *et al.*, 2019). Furthermore, in some of the previous similar studies assess the prevalence of obstetric danger signs only during pregnancy. Also, some important variables, like preconception care utilization, postnatal care, inter-pregnancy interval, and mode of delivery, were not included, and to the best of our literature review, there was no study conducted in the study area. Therefore, this study aimed to assess prevalence of obstetric danger signs during pregnancy, labour and delivery, and in the postpartum periods and associated factors among women who gave birth in the last year in Harar town, Eastern Ethiopia.

1.3. Significance of the Study

The finding of this study will help Harar Town Health Bureau to plan for appropriate intervention through identifying the gaps, to give more attention to prevent obstetric complications by early identifications of danger signs. In addition, it is hoped that, this study will help the health extension workers to know major factors contributing to experience danger signs among pregnant and postpartum women. It also helps for women for appropriate counseling on early treatment before the women and her fetus reach an irreversible complications and death. Furthermore, this study will be an important addition to the existing literatures in the identifications of factors associated with obstetric complications.

1.4. Objective

1.4.1. General Objective

To assess the obstetric danger signs experience and associated factors among women who gave birth in the last 12 months in Harar town, Eastern Ethiopia, from June 1 to 30, 2024.

1.4.2. Specific Objectives

To determine obstetric danger signs experience among women who gave birth in Harar town.

To identify factors associated with obstetric danger signs experience among women who gave birth in Harar town.

2. LITERATURE REVIEW

2.1. **Prevalence of Obstetric Danger Signs**

A community-based cross-sectional study conducted in Saudi Arabia revealed that out of 1,425 women, 35.2% experienced at least one obstetric danger sign during pregnancy. The most commonly reported danger signs were swelling of the face and hands during pregnancy (21.1%),(21.1%), prolonged labor during childbirth (23.1%), and foul-smelling vaginal discharge in the postpartum period (26.3%)38.7% during childbirth, and 36.1% during the postpartum period (Abu-Shaheen Amani *et al.*, 2022).

Another study conducted in Tanzania showed that among 384 postpartum women, 17.4% experienced danger signs during pregnancy (Mwilike *et al.*, 2018). In addition, a study in Cameron showed that among 532 women, 11.3% experienced prolonged labor, 4.5% experienced swelling of the face and hands, 3.4% experienced retained placenta, and 2.6% severe vaginal bleeding (Emeh *et al.*, 2021).

Similarly, an institution-based cross-sectional study done in Egypt, out of 200 study participants 8% experienced danger signs during pregnancy. Of them, 31.2%, 25.0%, 25.0% and 18.8% of the study participants encountered body swelling, severe Persistent vomiting, Absence of fetal movement, and Vaginal bleeding, respectively (Eittah, 2017). Another institution-based cross-sectional study done in Hargiesa town, Somaliland, showed that out of 222 study women, 19.8% experienced obstetric danger signs during pregnancy(Eittah, 2017).

Another institutional-based cross-sectional study done in Hargiesa town, Somaliland showed that out of 222 study women 19.8% were experienced obstetric danger signs during pregnancy (Ahmed *et al.*, 2023). Similarly, obstetric danger signs experience during pregnancy ranging from 8 to 41 % in Ethiopia depending on the type of study, study setting, and period when women were asked (Nurgi *et al.*, 2017, Terefe *et al.*, 2020, Teshoma Regasa *et al.*, 2020, Kebede *et al.*, 2021).

A community-based cross-sectional study conducted in Shashemene revealed that among 395 postpartum women had experienced a danger sign during pregnancy. Of those 15.4%, 12.7%, and 5.3% were developed vaginal bleeding, swelling of the body, and persistent vomiting, respectively (Terefe *et al.*, 2020). Similarly, a study done in Nekemte Town showed that out of 621 women who gave birth within one year, 24.6% experienced danger signs during pregnancy (Teshoma Regasa *et al.*, 2020). Moreover, a community-based cross-sectional study done in Gondar showed

that among 2367 women, 15.9% had experienced at least one danger sign with their last pregnancy (Kebede *et al.*, 2021).

Additionally, a community-based cross-sectional study conducted out of 634 women 8.1% were experienced danger sign during their last pregnancy (Nurgi *et al.*, 2017). Similarly, a community-based cross-sectional study conducted in Mizan Aman town in southwest Ethiopia showed that from 526 women, 14.6% had experienced at least one danger sign during their last pregnancy. Vaginal bleeding (46.5%), swelling of the hand and/or face (39%), and persistent headache (14.5%) were commonly experienced danger signs (Yosef and Tesfaye, 2021).

2.2 Factors Associated with the Experience of Obstetric Danger Signs

2.2.1 Socio-demographic factor

Maternal age: a study in southern China revealed that maternal age <18 years was 11.5 times (95% CI: 1.51,7.62) more likely to encounter danger signs during pregnancy (Chen-ning Liu, 2021). In another study conducted in Zanzibar, maternal aged less than 20 years were 3.8 (95%, CI: 1.040-14.210) times more likely to experience danger signs than those aged between 20-34 years(Machano and Joho, 2020). A study done in northern Tanzania showed that mothers aged 35 years and above were 1.7 times (95%, CI: 1.29-2.30) more likely to encounter obstetric danger signs relative to mothers in the age group of between 20-34 years (Olotu *et al.*, 2020).

Residence: a community-based cross-sectional study conducted in Saudi Arabia, revealed that the women's place of residence was a statistically significant association with danger signs. Additionally, according to a study done in Gondar, being an urban resident was 40% (AOR=1.40, CI: 1.10-1.81) more likely to experience danger signs (Kebede *et al.*, 2021).

Marital status: A study done in Tanzania showed that unmarried women were two times (AOR=2.03) more likely to experience danger signs compared to married women (Olotu *et al.*, 2020).

Educational level: a study conducted in Saudi Arabia showed that a mother with a higher level of education was 42% more likely to develop pregnancy-related danger signs(Abu-Shaheen A., AlFayyad, I., Heena, H., Nofal, A. and Riaz, M.,, 2022).

Occupational status; Occupational status; an unemployed mother was at a 33% lower risk of experiencing pregnancy-related danger signs (AOR= 0.67) relative to their counterpart (Abu-Shaheen A., AlFayyad, I., Heena, H., Nofal, A. and Riaz, M.,, 2022).

2.2.2. Obstetric factors

Antenatal care; a study done in Shashemene, Ethiopia, revealed that women who had less than four ANC visits were 6.7 times (AOR=6.7, 95% CI: 3.05-14.85) more likely to encounter ODS. An institution-based cross-sectional study conducted in Bale Robe town showed that. Moreover, another study revealed that late first ANC visits were significantly associated (AOR=1.85, 95% CI: 1.17-2.92 (Worku *et al.*, 2023).

Gravidity: a study done in Shashemene, Ethiopia, showed that primigravida (becoming pregnant for the first time) mothers were 6.3 times (AOR=6.3, 95% CI: 2.61-15.09) more likely to experience ODS during pregnancy compared to multiparous women (Terefe *et al.*, 2020). A similar study done in Addis Ababa, Ethiopia, showed that primigravida mothers were 3.29 times (AOR= 3.29, 95% CI: 1.14-7.54) at higher risk of experiencing ODS during pregnancy, childbirth, or puerperium (Kebede *et al.*, 2021).

Parity: a study done in Uganda showed that mothers who gave birth three or more times were significantly associated (AOR=3.69, 95% CI: 1.50- 9.08) with obstetric danger signs experienced compared to the counterpart (Worku *et al.*, 2023).

Place of delivery: A study done in Dire-Dawa, Ethiopia, showed that mothers who gave birth at home were 2.6 times (AOR=2.61, 95% CI: 1.02-6.70) more likely to develop obstetric danger signs during childbirth and post-natal period relative to mothers who gave birth in health facilities(Mohammed *et al.*, 2023).

History of PROM: A study conducted in Dire Dawa, Ethiopia, showed that women with a history of premature rupture of membranes (PROM) were 96% (AOR = 1.96, 95% CI: 1.02-3.60) more likely to encounter ODS during pregnancy and childbirth (Tolera *et al.*, 2022).

History of abortion: Moreover, a Study done in Uganda revealed that women who had a history of abortion were 1.64 times (AOR=1.64, 95% CI: 1.08-2.47) more likely to encounter pregnancy-related danger signs (Tamale *et al.*, 2022).

2.2.4. History of chronic medical illness

An institution-based Study done in Gondar, Ethiopia, showed that family history of chronic disease was 7.8 times (95% CI 3.037-19.63) more likely to experience pregnancy-related danger signs compared to those who had no family history of chronic disease(Walle and Azagew, 2019). A cross-sectional survey done in Saudi Arabia revealed that having hypertension was 2.11 times (95% CI: 1.42-3.13) more likely to experience obstetric danger signs during pregnancy, childbirth, or postpartum period (Abu-Shaheen A., AlFayyad, I., Heena, H., Nofal, A. and Riaz, M.,, 2022). A study done in southwest Ethiopia showed that women who had a heart-related problem were 90% more likely to develop pregnancy-related danger signs compared to women who had no heart problem (Kebede *et al.*, 2021).

2.3 Conceptual Framework

This conceptual framework indicates the association between obstetric danger signs and associated factors, which is adapted after reviewing different related literature. Four categories of factors are indicated: socio-demographic, obstetric factors, knowledge of obstetric danger signs, and maternal medical factors (Geleto *et al.*, 2019, Terefe *et al.*, 2020, Kebede *et al.*, 2021, Abu-Shaheen A., AlFayyad, I., Heena, H., Nofal, A. and Riaz, M.,, 2022) (Solid lines are factors with the immediate relationship and broken lines are factors with the indirect relationship).

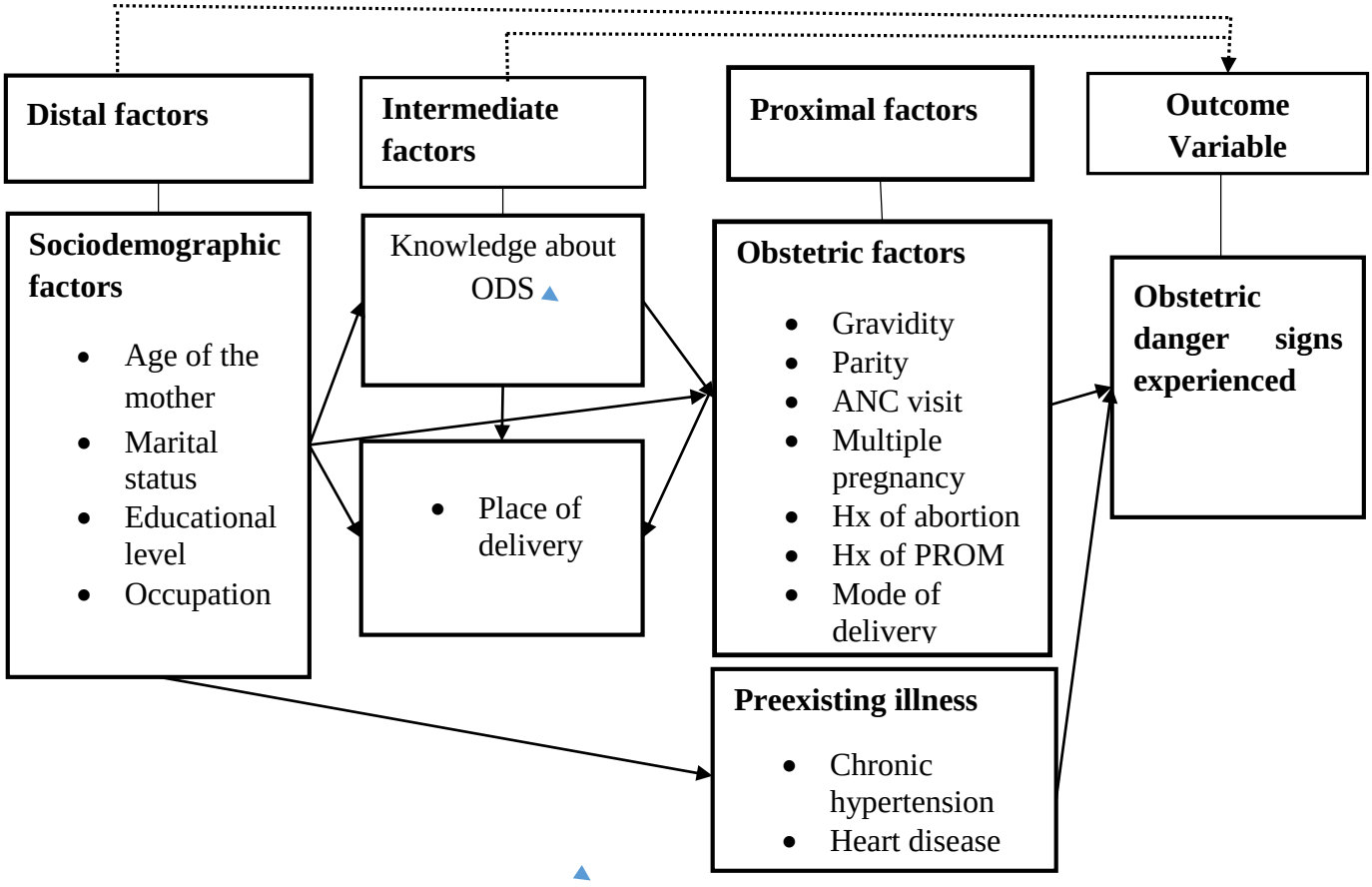

Figure 1: Conceptual framework which shows factors associated with obstetric danger signs experience among women who gave birth in the past 12 months in Harar town Eastern, Ethiopia 2024

3. METHODS AND MATERIALS

3.1 Study Area and Period

The study was conducted in Harar town, Eastern Ethiopia, which is located 526 km to the East of Addis Ababa, Ethiopia. Harar town has a total population of 282,848 of which 73,823 are reproductive-age women. The Harar Health and Demographic Surveillance System (HDSS) reported a TFR of 1.9 in 2013. A broader regional data from 2016 indicated a higher TFR of 4.1 for the Harari Region (Assefa and Semahegn, 2016).The study was conducted in Harar town, Eastern Ethiopia, which is located 526 km to the East of Addis Ababa, Ethiopia. Harar town has a total population of 282,848, of which 73,823 are reproductive-age women. The Harar Health and Demographic Surveillance System (HDSS) reported a TFR of 1.9 in 2013. A broader regional data from 2016 indicated a higher TFR of 4.1 for the Harari Region (Assefa and Semahegn, 2016). The estimated annual number of pregnant women in the town is 8740. The city has 5 hospitals (two governmental hospitals, namely Hiwot fana specialized and comprehensive hospital and Jugal general hospital, one federal police hospital, and two private hospitals, namely Harar general hospital and Wallif hospital), 5 health centers, 6 health posts, and 64 private clinics according to the Harar regional health bureau report (HRHB, 2023). The study was conducted from June 1 to 30, 2024.

3.2 Study Design

A community-based cross-sectional study was conducted.

3.3. Population

3.3.1 Source Population

All women who gave birth in the past 12 months in Harar town were the source population.

3.3.2 Study Population

All women who gave birth in the past twelve months in the selected Woreda during the study period

3.4 Inclusion and Exclusion Criteria

3.4.1 Inclusion criteria

All women who gave birth in Harar town in the last 12 months during the study period were included in the study.

3.4.2 Exclusion criteria

Women who live in the area for less than six months were excluded from the study.

3.5 Sample Size Determination

For the first objective

The sample size was determined using a single population proportions formula with the assumption of the standard normal distribution corresponding to a 95% confidence interval, a margin of error assumed to be 5%, considering design effect 1.5, and an assumption that the proportion of experiencing obstetric danger signs is 41.3% which was taken from the previous study conducted in Shashemene, Ethiopia (Terefe *et al.*, 2020).

$$n = \frac{\left(Z\,{}^{\alpha}/_{2}\right)^{2} P(1-P)}{d^{2}}$$

Where n=the required sample size

Z=the standard score corresponding to 95%CI, was equal to 1.96

P=the prevalence of obstetric danger signs during pregnancy 41.3%

$d^{2=}$level precision (margin of error) which was taken at 5%

$$n = \frac{(1.96)^{2} 0.413(1-0.413)}{(0.05)^{2}} * 1.5 = 588$$

After considering 1.5 design effect, and 5% of non-response rate the final sample size for this study was 588 mothers who gave birth in the past 12 months in Harar Town.

The sample size for the second objective

A double population proportion formula was used to determine the sample size by considering several factors associated with obstetric danger signs by using Epi- info 7 software Stat- Cal with the following assumptions; 95% confidence level, design effect 1.5 (Terefe *et al.*, 2020), Power; 80% and 5% of the non-response rate.

Table 1: Sample size estimation based on factors associated with obstetric danger signs

Variables	Obstetric danger signs		Final sample size	References
	Exposed (%)	Non-exposed (%)		
Medical complication	63.4(yes)	36.8(no)	201	(Kebede *et al.*, 2021)
Residence	33.1(Urban)	66.7(Rural)	132	(Kebede *et al.*, 2021)
ANC visit	71 (<4)	21(>4)	163	(Terefe *et al.*, 2020)

The largest sample size for the second objective was smaller than the first. Thus, the largest sample size from first objective (588) was our final sample size.

3.6 Sampling Procedure and Sampling Technique

A multistage sampling technique was employed to select the study participants. In the first stage, three districts were selected from a total of six using the lottery method. Then a census was conducted to register all women who gave birth within 12 months, irrespective of the outcomes of delivery. Data collectors, in collaboration with health extension workers, conducted the census. Proportional allocation was then carried out for each kebele based on the number of eligible mothers. Finally, a systematic sampling technique was used to select participants. The first household with an eligible woman was selected by the lottery method, then every Kth interval household, which was calculated for each kebele, because the number of households varies from one kebele to another. If a household had more than one eligible woman, one was chosen at random. In cases where the selected mother was not available at the time of the visit, at least three revisits were arranged.

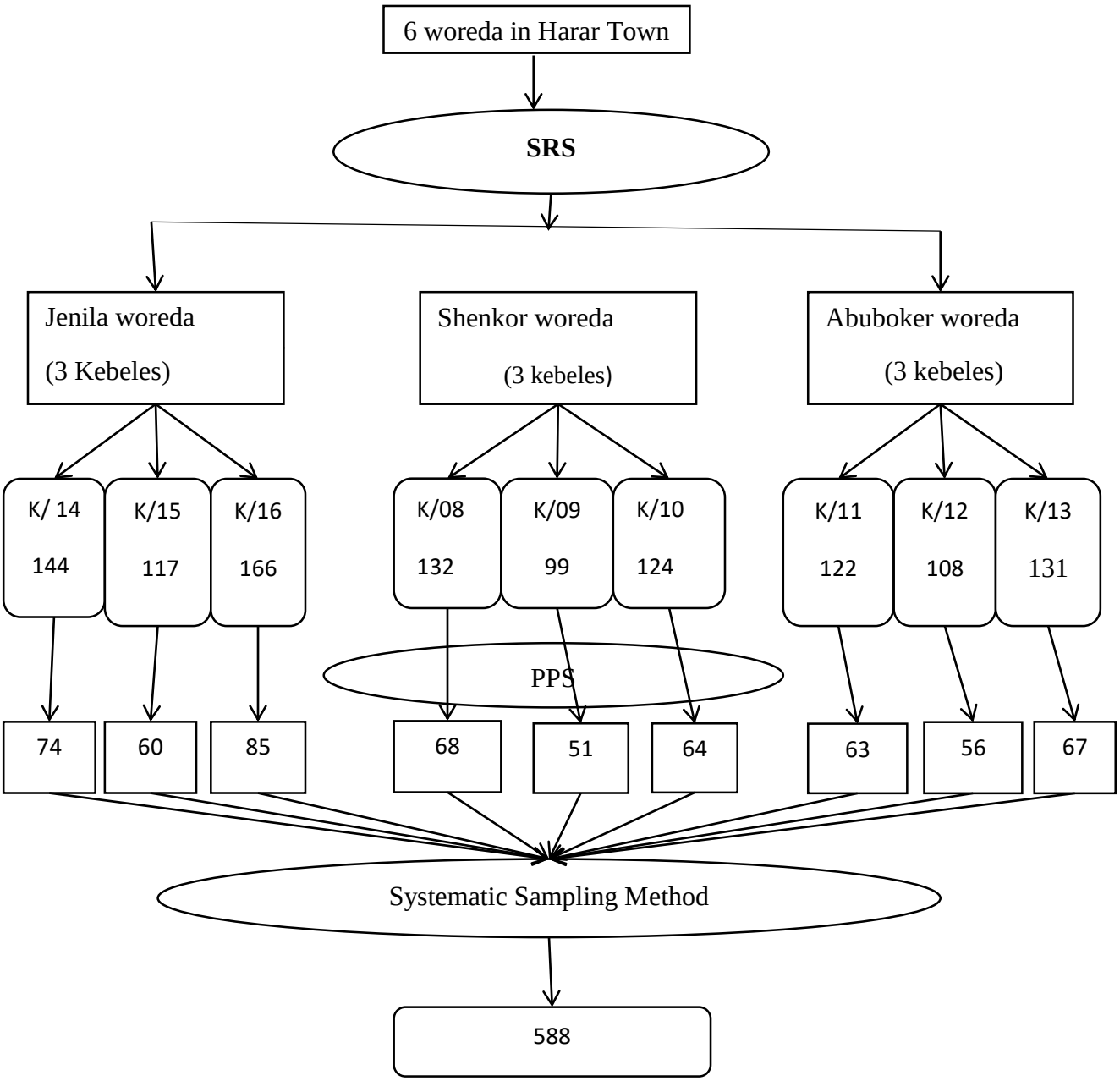

Figure 2: the schematic presentation of the sampling procedures

3.7 Data Collection Methods

3.7.1 **Data collection tools**

A pretested and structured questionnaire was used for data collection. The questionnaire consisted of four sections: socio-demographic characteristics, obstetric-related factors, medical factors, and knowledge about obstetric danger signs (JHPIEGO, 2004, Terefe *et al.*, 2020, Kebede *et al.*, 2021, Abu-Shaheen A., AlFayyad, I., Heena, H., Nofal, A. and Riaz, M.,, 2022).

3.7.2 Data collectors and supervisors

Data was collected by nine trained BSc midwives and supervised by three MSc midwives.

3.7.3 Data collection procedures

Data were collected through face-to-face interviews. The questionnaire was prepared in the English language, then translated into Amharic and back into English to confirm the consistency of the data. Two days of training were given for the data collectors and supervisors regarding the objective of the study, contents, and clarification of the questionnaire to have a common understanding, selection method, and ethical consideration while dealing with study participants. Explanation was given to participants on the purpose of the study and the importance of their involvement.

3.8 Variables

3.8.1 Dependent Variable

Obstetric danger signs experience

3.8.2 Independent Variables

Socio-demographic characteristics: age, educational level, occupational status, marital status

Obstetric-related factors: Parity, pregnancy status, preconception care, pregnancy interval, antenatal care contact, time of first antenatal care contact, number of antenatal contacts, multiple pregnancy, history of abortion, history of stillbirth, mode of birth, place of birth, postnatal care, pre-existing medical complications.

Pre-existing medical illness: Chronic hypertension, Diabetes mellitus, Heart disease

Knowledge of obstetric danger signs

3.9. Operational Definitions

The key danger signs during pregnancy are vaginal bleeding, swollen hands/face, and blurred vision. During childbirth, severe bleeding, prolonged labour, retained placenta, and convulsion are the key danger signs, and in the postpartum period, severe vaginal bleeding, foul-smelling lochia, and high fever (JHPIEGO, 2004).

Obstetric danger signs experience: In this study, obstetric danger signs experience was the occurrence of at least one key danger sign during any of the three periods: pregnancy, childbirth, or the postpartum period.

Preconception care: Any interventions, either advice or treatment, and lifestyle modifications women received before being pregnant(WHO, 2013).

Components of preconception care: In this study, the components of preconception care were taking folic acid, taking iron sulfate, screening for chronic medical disease, eating extra meals, preparing a diet from different cereals, family planning removal, immunization for tetanus, and checking the husband's health condition.

Preconception care utilization: If women received any interventions, either advice or treatment, and lifestyle modification regarding components of preconception care at least once before being pregnant.

Good knowledge on key obstetric danger signs: if a woman spontaneously mention at least three key obstetric danger signs without prompting (Geleto *et al.*, 2019).

Pre-existing medical illness is the presence of at least one or more chronic medical conditions, including but not limited to diabetes mellitus (DM), hypertension (HTN), and HIV/AIDS, asthma, anemia, epilepsy, or heart problems. In this study, participants who self-report any of the listed conditions and are currently receiving follow-up care at a health facility will be considered as having a pre-existing medical illness.

Optimal antenatal care: A woman is considered to have received optimal antenatal care if she attended all eight or more antenatal care contacts during her most recent pregnancy as recommended by the 2016 World Health Organization (WHO) guidelines.

3.10 Data quality control

The questionnaire was prepared in English and was translated into the local language for data collection and then retranslated back into English. Two days of training were provided to the data collectors and supervisors on the data collection tool and the data collection procedures. Then the questionnaire was pretested on 5% of the sample size in the study area. Data collectors were supervised closely by the supervisors and the principal investigator. Completeness of each questionnaire was checked by the principal investigator and the supervisors on a daily basis. Double data entry was done by two data clerks, and the consistency of the entered data was cross-checked by comparing the two separately entered data on EPI Data.

3.11. Data processing and Analysis

The data were coded, edited, cleaned, and entered into Epi Data 4.6 and then exported to SPSS 26 for analysis. Descriptive statistical analysis was used to describe the characteristics of the study participants using frequencies and tables. Binary logistic regression analysis was used to identify independent variables associated with the experience of obstetric danger signs. Then, all variables with $p< 0.25$ in the binary analysis were included in the final model. The model goodness of fit was tested by the Hosmer-Lemeshow statistic and Omnibus test. The model was considered a good fit since it was found to be insignificant for the Hosmer-Lemeshow statistic ($p=0.238$) and significant for Omnibus tests ($p=0.000$). A multicollinearity test was carried out to see the correlation between independent variables using VIF and tolerance tests, and no variables were observed with a VIF of >10 or a tolerance test of <0.1. The direction and strength of statistical association were measured by adjusted odds ratio along with 95% CI. Finally, a p-value < 0.05 was considered a statistically significant association.

3.12 Ethical Considerations

Data collection was carried out after approval by the Institutional Health Research Ethics Review Committee of Haramaya University, College of Health and Medical Science. A permission letter was obtained from the School of Graduate Studies and was submitted to the Woreda offices. Confidentiality was maintained by using identification numbers instead of individual names. And also their risk and benefits of participating in the study was discussed. Participants were informed that they had the full right to refuse to participate in the research.

4. RESULTS

4.1 Socio-demographic characteristics of participants

From a total of 588 women identified, 582 (98.9%) participated in the study. The mean age of the study participants was 26.8 (±4.7) years, ranging from 18 to 39 years. The majority, 565 (97.1%), of the study participants were married, and 203 (34.9%) of the women were housewives. (Table 2).

Table 2: Socio-demographic characteristics of women who gave birth in the past 12 months in Harar town, Eastern Ethiopia, 2024 (n = 582).

Variable	Category	Frequency	Percentage (%)
Age	15-19	59	10.1
	20-34	485	83.3
	≥ 35	38	6.5
Marital status	Married	565	97.1
	other*	17	2.9
Woman education	Unable to read and write	19	3.3
	Able to read and write	100	17.2
	Primary education	178	30.6
	Secondary education	177	30.4
	College and above	108	18.6
Woman occupation	Housewife	203	34.9
	Government-employed	152	26.1
	Self-employed	96	16.5
	Merchant	114	19.6
	others**	17	2.9

Husband Education	Unable to read and write	28	4.8
	Able to read and write	78	13.4
	Primary education	184	31.6
	Secondary education	165	28.4
	College and above	127	21.8

*single, widowed, divorced

**Student, Unemployed & daily worker

4.2 Obstetrics and Medical history of women

From the total study participants, 372 (63.9%) were multiparous, and 516 (88.7%) had at least one antenatal care contact. More than half, 313 (53.8%), of women had late antenatal care contact. Preconception care utilization was 113 (19.4%), and 62 (10.7%) of women had preexisting medical illnesses (table 3).

Table 3: Obstetric and medical characteristics of women who gave birth in the past 12 months in Harar town, Eastern Ethiopia, 2024 (n = 582).

Variable	Frequency	Percentage (%)
Parity		
Primipara	210	36.1
Multipara	372	63.9
ANC contact		
Yes	516	88.7
No	66	11.3
Optimal ANC contact		
Yes	254	43.6
No	262	45
ANC initiation time		
Before 12 weeks	203	34.9
After 12 weeks	313	53.8
Postnatal care		
Yes	156	26.8
No	426	73.2
Preconception care		
Yes	113	19.4
No	469	80.6
Pregnancy status		
Planned	494	83.7
Unplanned	88	16.3

History of abortion		
Yes	79	13.6
No	503	86.4
Mode of delivery		
Vaginal	483	83
C-section	99	17
Pregnancy interval		
< 24 months	87	14.9
≥24 months	282	48.5
Place of birth		
Health facility	559	96
Home	23	4
History of Still birth		
Yes	32	5.5
No	550	94.5
Multiple pregnancy		
Yes	8	1.4
No	575	98.6
Preexisting medical illness		
Yes	62	10.7
No	520	89.3

Chronic hypertension (24, 33.8%) and diabetes mellitus (17, 15.5%) were the commonest preexisting medical illnesses reported by the women (Figure 3).

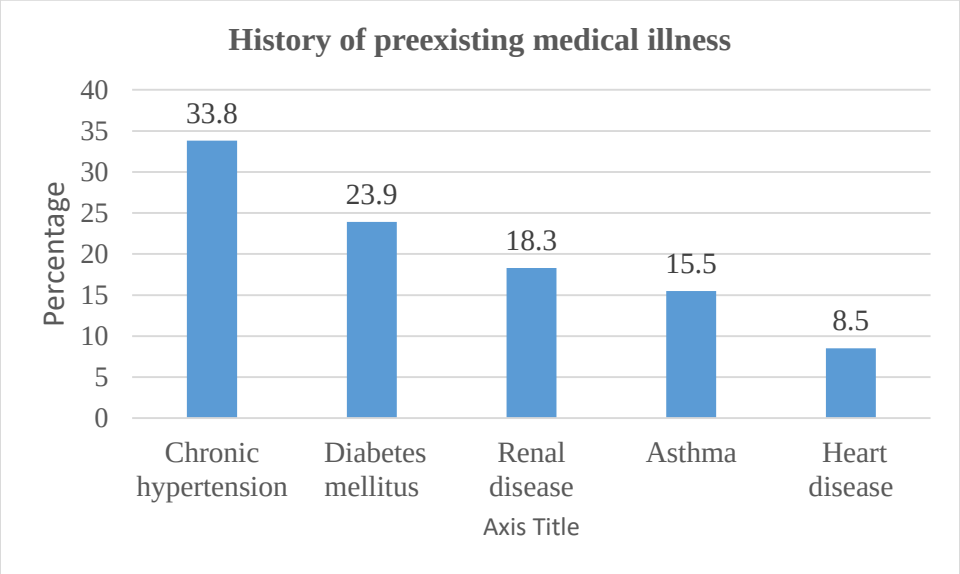

Figure 3: Preexisting medical illness among women who gave birth in Harar town eastern Ethiopia, 2024.

4.3 Preconception care utilization of women

The most frequently used types of preconception care are discontinuation of family planning 83 (41%), followed by taking an extra meal 46 (23%) for the sake of preparing for pregnancy (figure 4).

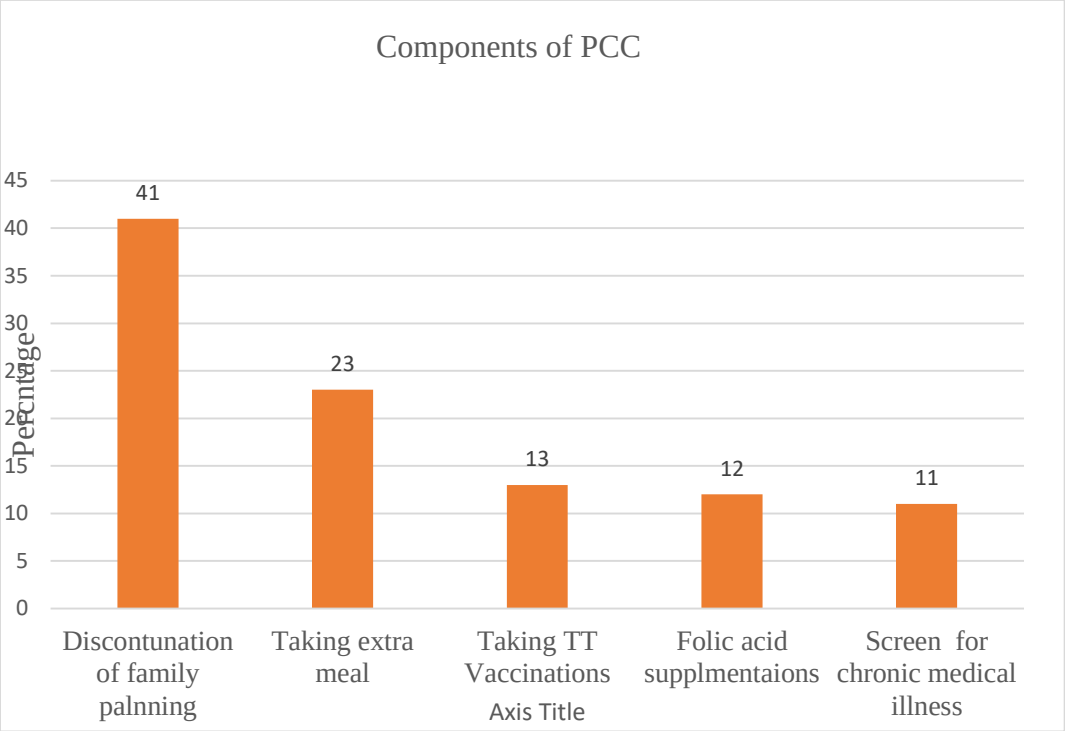

Figure 4: Components of preconception care services utilized among women who gave birth in Harar town Eastern Ethiopia 2024.

4.4 Knowledge of Women about Key Obstetric Danger Signs

About 338 (58.1%) women had good knowledge about the key obstetric danger signs. During pregnancy, the most commonly recognized danger sign was vaginal bleeding 379, 65.1%), followed by swelling of the hands and face. During childbirth, prolonged labor 220 (37.8%) was the most commonly identified danger sign. In the postpartum period, high fever 157 (35.9%) was the most recognized danger sign (Figure 5).

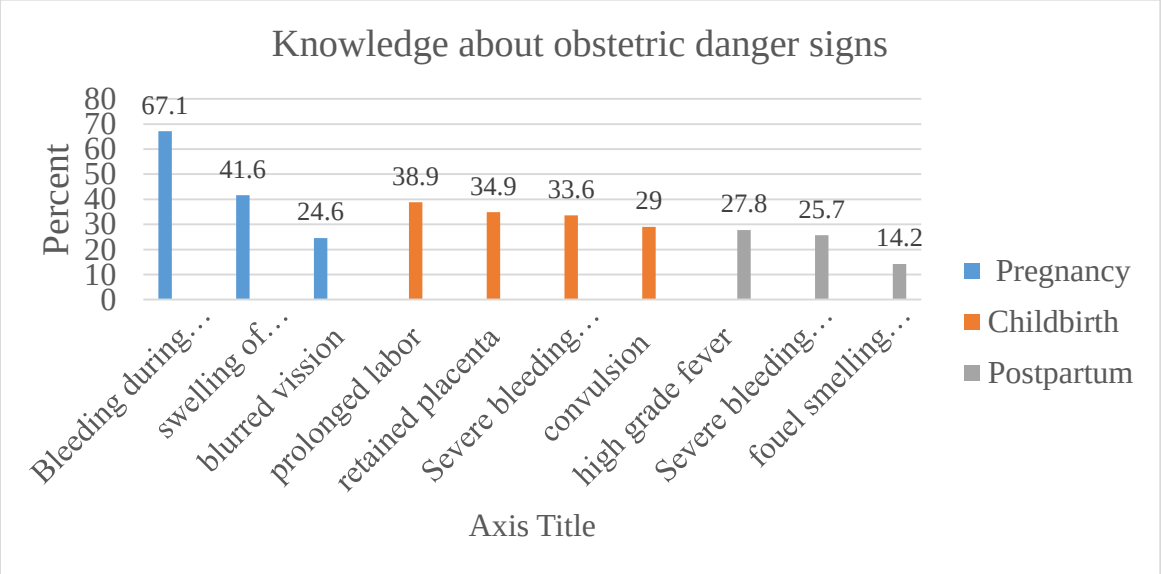

Figure 5: Knowledge on key obstetric danger signs among women who gave birth in Harar town Eastern Ethiopia

4.4 Prevalence of obstetric danger signs

A total of 178 (30.6%; 95% CI: 26.9, 34.5) women experienced at least one obstetric danger sign during their recent pregnancy, childbirth, or postpartum period. From them, nearly half 93 (52%) of women visit a health facility consequent to experiencing danger signs. Swollen hands or face 77 (43%), prolonged labor 59 (33%), and blurring of vision were the most commonly experienced danger signs. (Figure 5 & table 4)

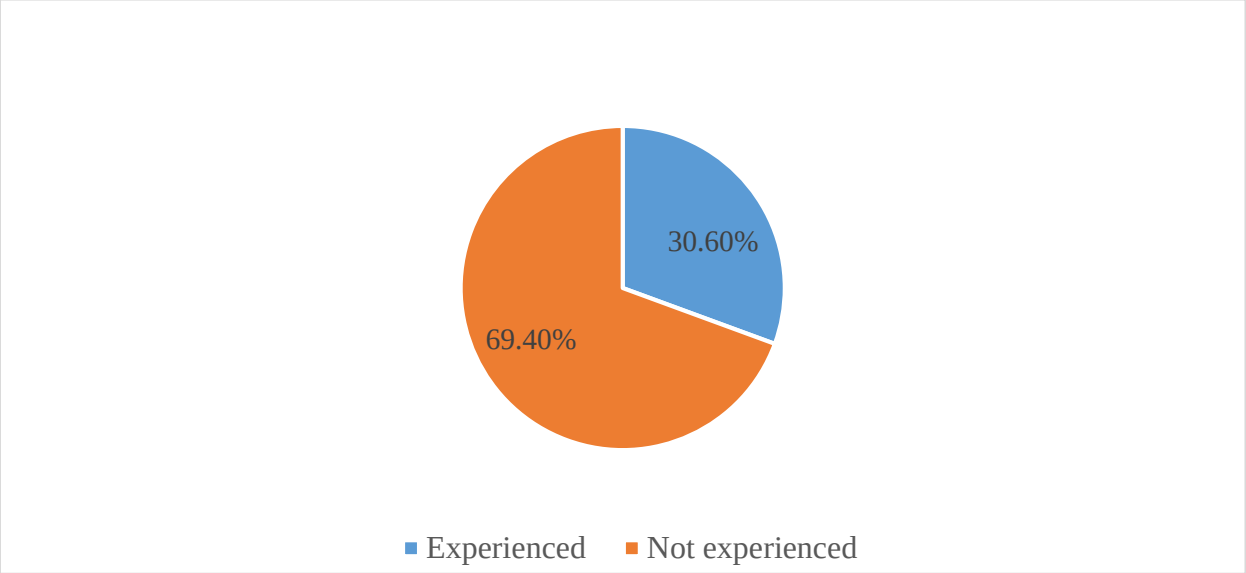

Figure 6: Prevalence of obstetric danger signs among women who gave birth in Harar town eastern Ethiopia, 2024.

Table 4: Obstetric Danger Signs Experienced during Pregnancy, childbirth, and the Postpartum Period among Women Who Gave Birth in the Past 12 Months in Harar Town, Eastern Ethiopia, 2024.

Variables	Frequency	Percent (%)
During pregnancy		
Swollen hands/face	77	43
Vaginal bleeding	47	26.3
Blurred vision	51	28.5
During childbirth		
Severe vaginal bleeding	46	25.7
Prolonged labor (>12 h)	59	33
Convulsion	33	18.4
Retained placenta	20	11.2
During postpartum		
Severe vaginal bleeding	43	24
Foul-smelling discharge	29	16.2
High fever	49	27.4

4.6 Factors associated with obstetric danger signs

In the bi-variable logistic regression, age, parity, pregnancy status, preconception care utilization, number of ANC, late first ANC visit, postnatal care utilization, mode of childbirth, good knowledge of obstetric danger signs, and preexisting medical illness were associated with the experience of obstetric danger signs with a p-value < 0.25. In the multivariable logistic regression, only age, preconception care, late first ANC visit, pregnancy status, good knowledge of obstetric danger signs, and preexisting chronic medical illness remained statistically significantly associated with the experience of obstetric danger signs.

Women who were under the age of 20 were 4.8 (AOR = 4.84; 95% CI (1.59, 14.67)) times more likely to experience danger signs. Women with unplanned pregnancies were 2.7 (AOR = 2.69; 95% CI (1.51, 4.80)) more likely to experience obstetric danger signs as compared to their counterparts. Women who received preconception care were 57% (AOR = 0.43; 95% CI (0.24, 0.77)) less likely to experience obstetric danger signs than those who did not. Women who had preexisting medical illnesses were four (AOR = 4.93; 95% CI: 2.54, 9.55) times more likely to experience obstetric danger signs as compared to their counterparts. Moreover, women who had a late first ANC visit were two (2.37; 95% CI: 1.48, 3.78) times more likely to experience obstetric danger signs as compared to their counterparts. Women who had good knowledge of obstetric danger signs were 3.6 (3.60; 95% CI: 2.27, 5.72) times more likely to experience obstetric danger signs.

Table 5: Factors associated with obstetric danger signs experience among women who gave birth in the past 12 months in Harar town Eastern, Ethiopia 2024 (n=582)

Variable		Danger signs experience		COR(95% CI)	AOR (95% CI)	P-value
		Yes (%)	No (%)			
Age	Less than 20	33	26	2.03(0.88,4.68)	4.84(1.59,14.80)	**0.005**
	21-34	131	354	0.64(0.32,1.28)	1.20(0.52,2.76)	0.672
	≥35	14	24	1	1	
Pregnancy status	Planned	133	361	1	1	
	Unplanned	43	45	2.39(1.53,3.75)	2.69(1.51, 4.80)	**0.001**
Parity	Primipara	79	131	1.66(1.16,2.38)	1.39(0.65, 2.24)	0.174
	Multipara	99	273	1	1	
ANC initiation	After 12wks	112	203	2.27(1.52,3.39)	2.37 (1.49,3.78)	**0.000**
	Before 12wks	39	162	1	1	
Preconception care	Yes	20	94	0.55(0.34, 0.90)	0.43(0.24, 0.78)	**0.005**
	No	158	310	1	1	
Mode of childbirth	C/S	42	57	1.67(1.06,2.63)	1.29(0.74, 2.25)	0.368
	VD	136	347	1		
Postnatal care utilization	Yes	37	130	1.80(1.19,2.74)	1.25(0.74,1.98)	0.350
	No	141	274	1	1	
Preexisting medical illness	Yes	33	31	3.97(2.31,6.85)	4.93(2.55, 9.56)	**0.000**
	No	145	373	1	1	

Optimal ANC visit	Yes	54	169	0.64(0.44,0.92)	0.67(439, 1.84)	0. 072
	No	97	196	1	1	
Good knowledge		139	194	3.85(2.57,5.78)	3.60(2.26, 5.71)	**0.000**
Poor knowledge		39	210	1	1	

CI, Confidence interval; COR, Crude odds ratio; AOR, Adjusted odds ratio, ANC, antenatal care

5. DISCUSSION

Although maternal health services such as antenatal care, skilled delivery, and postnatal care have been scaled up over the past decades, obstetric danger signs are high. Various factors, ranging from socio-demographic characteristics and healthcare utilization to pregnancy planning and pre-existing health conditions, have been shown to influence the likelihood of experiencing danger signs. Understanding the prevalence of obstetric danger signs and associated factors is essential for informing targeted interventions, improving maternal care, and ultimately reducing preventable maternal and perinatal mortality.

We found that 30.6 (95% CI: 26.9, 34.5) of women experienced at least one obstetric danger sign during pregnancy, childbirth, and the postpartum period. Factors that were independently associated with obstetric danger sign experience were age, preconception care utilization, unplanned pregnancy, late first antenatal care initiation, and having preexisting medical complications.

Our finding is higher than the study conducted in Ethiopia and different studies conducted in Africa, such as Egypt (8%) (Eittah, 2017), Cammeron (11.3%) (Emeh *et al.*, 2021), Tanzania (17.4%) (Mwilike *et al.*, 2018), Hargessa (19.8%) (Ahmed *et al.*, 2023), Nekemte (24.6%) (Teshoma Regasa *et al.*, 2020), Debre Birhan (8.1%) (Nurgi *et al.*, 2017), south Ethiopia (14.6%), Gondar (15.9 %) (Kebede *et al.*, 2021). However, it is lower than study conducted in Saudi Arabia (36.1 %) (Abu-Shaheen Amani *et al.*, 2022) and Shashmene (41.3%) (Terefe *et al.*, 2020).

The possible justification for the higher prevalence of the current study might be the difference in the socioeconomic, and health-seeking behavior across different cultures. Furthermore, the previous studies assessed the prevalence of danger signs only during pregnancy. But we tried to assess the prevalence of obstetric danger signs during the three periods (pregnancy, childbirth, and postpartum period).

However, the possible justifications for the lower prevalence of the current study might be variation in the study setting, study population, and sample size. For instance, studies in Saudi Arabia use a larger sample size. In addition, antenatal care utilization is 89% in this study as compared to 68% in Shashemene (Terefe *et al.*, 2020).

Therefore, women who have ANC would benefit from the health promotion and disease prevention activities such as supplementation of iron/folic acid, vaccination, health education and counselling, which are crucial for the prevention of pregnancy-related complications.

Consistent with other studies, obstetric danger signs experiences were more likely among mothers under the age of 20. This is in line with the study conducted in China and Zanzibar (Machano and Joho, 2020, Liu *et al.*, 2021). This might be due to their body anatomy not being well-matured and having exaggerated physiologic and anatomic changes of pregnancy. Furthermore, a greater number of young women are primipara and have had unplanned pregnancies. Additionally, this might be due to a lack of knowledge about obstetric danger signs and early antenatal care contact. Moreover, women with delayed first antenatal care initiation were more likely to develop danger signs than their counterparts. This is consistent with the study findings in Uganda and Ethiopia. (Tamale *et al.*, 2022, Hussein Hasen *et al.*, 2024). This is because early initiation of antenatal care provides an opportunity for the early screening of existing problems, which enables timely intervention. In addition, it creates the opportunity to provide immunizations against tetanus, supplementation of iron and folic acid to prevent anemia, and counseling on nutrition and obstetric danger signs (Tesfaye *et al.*, 2017).

Similarly, women with unplanned pregnancies were more likely to experience danger signs than their counterparts. This could be due to women with unplanned pregnancy having fewer antenatal care visits and delayed initiation of antenatal care, unhealthy behavior during pregnancy, and psychosocial maternal health (Abebe et al., 2023).

Women with preexisting medical illness were more likely to develop an obstetric danger sign. This is supported by the study conducted in Gondar (Kebede *et al.*, 2021). This is because pregnancy places additional demands on the body, potentially exacerbating underlying medical conditions, and heightened physiological stress can lead to complications.

Additionally, women having good knowledge about obstetric danger signs were more likely to experience obstetric danger signs as compared to those having poor knowledge. The possible justification might be that women who are well-informed are more likely to recognize and correctly interpret symptoms as danger signs. This doesn't necessarily mean they are experiencing more danger signs than others, but rather that they are better at identifying and reporting them.

Furthermore, women who did not have preconception care were more likely to experience danger signs as compared to women who had preconception care. This might be due to most of these complications develop during pregnancy, exist before, and worsen during pregnancy, especially if not managed as part of the preconception care (Jourabchi *et al.*, 2019). Risk identification, health education, promotion, and initiation of evidence-based interventions in the period before conception detection and optimal control of specific medical conditions to optimize pregnancy-related outcomes.

6. STRENGTH AND LIMITATIONS

6.1 Strength

This study is a community-based study; therefore, the findings could be generalized. This study tried to assess the prevalence of obstetric danger signs experienced during the three periods (pregnancy, childbirth, and postpartum).

6.2 Limitations

Given that we used maternal reports, the prevalence of obstetric danger signs can be over- or under-estimated. Recall bias is likely, as women were asked to remember experiences that occurred up to a year prior to the interview. In addition, due to the cross-sectional study design, the study cannot establish causal relationships between the identified factors and the occurrence of obstetric danger signs.

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7. CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusions

The study showed that one-third of women experienced at least one obstetric danger sign in any of the three periods. We found that age under 20, not receiving preconception care, having an unplanned pregnancy, late initiation of antenatal care, and having preexisting medical complications were independently associated with experiencing at least one danger sign during pregnancy, childbirth, and postpartum.

7.2 Recommendations

To Harari regional health office

- ✓ Train healthcare extension workers to educate women about recognizing and responding to danger signs during routine ANC, delivery, and postpartum care.
- ✓ Promote awareness and accessibility of preconception care to help women plan pregnancy and address health concerns before conception.
- ✓ Encourage early initiation of antenatal care through community outreach and education programs to ensure timely identification and management of risk factors.

To health facilities

- ✓ Routine screenings for chronic medical complications during antenatal visits and provide appropriate management to mitigate risks during pregnancy and postpartum.
- ✓ Provide consistent follow-up care for postpartum women to detect and address danger signs early.
- ✓ Identify and manage obstetric danger signs effectively and ensure that at-risk women are monitored closely.

To health extension workers and health development army

- ✓ Timely counseling on the importance of early ANC initiation and regular visits**.**

- ✓ Provide education for young women to delay pregnancy, and increase access to family planning services

To the researchers

- ✓ Further research is recommended to explore additional factors associated with the experience of obstetric danger signs.
- ✓ Future studies should consider using alternative study designs, particularly cohort studies, which are better suited for measuring incidence, identifying risk factors, and determining fatality rates related to obstetric complications.
- ✓ Additionally, there is a need for studies that specifically target rural communities, where access to maternal health services may be limited and the burden of obstetric danger signs could be higher.

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9. ANNEXES

9.1 Participant information sheet and informed voluntary consent form

9.1.1 Participant information sheet and informed voluntary consent form for participants: age ≥ 18 years (English version)

1. Introduction

My name is _____. I am working as a data collector for the study being conducted in this community by Endashaw Almaw who is studying for his Master's degree at Haramaya University, the College of Health and Medical Sciences. I kindly request you to lend me your attention to explain you about the study and being selected as the study participant.

2. The study/project title: obstetric danger signs and associated factors among mothers who gave birth in Harar Town Eastern Ethiopia 2023: a community-based cross-sectional study.

3. Purpose/aim of the study: The findings of this study can be of a paramount importance for the district health office to plan intervention programs to improve maternal and health and reduce maternal mortality and morbidity. Moreover, the aim of this study is to write a thesis as a partial requirement for the fulfillment of a Master's Program in maternal and neonatal nursing for the principal investigator.

4. Procedure and duration: I will be interviewing you using a questionnaire to provide me with pertinent data that is helpful for the study. The interview will take about 30 minutes, so I kindly request you to spare me this time for the interview.

5. Risks and benefits: The risk of being participating in this study is very minimal, but only taking 30 minutes from your time. There would not be any direct payment for participating in this study. But the findings from this research may reveal important information for the local health planners.

6. Confidentiality: The information you will provide us will be confidential. There will be no information that will identify you in particular. The findings of the study will be general for the study community and will not reflect anything particular of individual persons or housing. The questionnaire will be coded to exclude showing names. No reference will be made in oral or written reports that could link participants to the research.

7. Rights: Participation for this study is fully voluntary. You have the right to declare to participate or not in this study. If you decide to participate, you have the right to withdraw from the study at any time and this will not label you for any loss of benefits which you otherwise are entitled. You does not have to answer any question that you does not want to answer.

8. Contact address: If there are any questions or enquires any time about the study or the procedures, please contact: Contact address of the Principal Investigator:

Name: Endashaw Almaw:

Phone number: +251-933552051/975307804

Email address: endualma2014@gmail.com

Contact address of the responsible Institutional Health Research Ethics Review Committee (IHRERC) Haramaya University: Office phone: 0254662011, P.O. Box: 235, Harar, Ethiopia

9. Declaration of informed voluntary consent: I have read/ was read to me/ the participant information sheet. I have clearly understood the purpose of the research, the procedures, the risks and benefits, issues of confidentiality, the rights of participating and the contact address for any queries. I have been given the opportunity to ask questions for things that may have been unclear. I was informed that I have the right to withdraw my child from the study at any time or not to answer any question that you does not want. Therefore, I declare my voluntary consent to participate (be involved) in this study with my initials (signature).

Name and signature of participant: _____ Date: _____

Name and signature of Data Collector: _____ Date: _____

9.1.2 Participant information sheet and informed voluntary consent form for parents/gurdian for minor age < 18 years (English version)

1. Introduction

My name is _____. I am working as a data collector for the study being conducted in this community by Endashaw Almaw who is studying for his/her Master's degree at Haramaya University, the College of Health and Medical Sciences. I kindly request you to lend me your attention to explain your daughter/wife being selected as the study participant.

2. The study/project title: obstetric danger signs and associated factors among mothers who gave birth in Harar Town Eastern Ethiopia 2023: a community-based cross-sectional study.

3. Purpose/aim of the study: The findings of this study can be of a paramount importance for the district health office to plan intervention programs to improve maternal and health and reduce maternal mortality and morbidity. Moreover, the aim of this study is to write a thesis as a partial requirement for the fulfillment of a Master's Program in maternal and neonatal nursing for the principal investigator.

4. Procedure and duration: I will be interviewing your daughter/wife using a questionnaire to provide me with pertinent data that is helpful for the study. The interview will take about 30 minutes, so I kindly request you to allow her spare this time for the interview.

5. Risks and benefits: The risk of being participating in this study is very minimal, but only taking few minutes from her time. There would not be any direct payment for participating in this study. But the findings from this research may reveal important information for the local health planners.

6. Confidentiality: The information she will provide us will be confidential. There will be no information that will identify her in particular. The findings of the study will be general for the study community and will not reflect anything particular of individual persons or housing. The questionnaire will be coded to exclude showing names. No reference will be made in oral or written reports that could link participants to the research.

7. Rights: Participation for this study is fully voluntary. You have the right to declare your daughter/wife to participate or not in this study. If you decide she has to participate, you have the

right to withdraw her from the study at any time and this will not label her for any loss of benefits which she otherwise is entitled. She does not have to answer any question that she does not want to answer.

8. Contact address: If there are any questions or enquires any time about the study or the procedures, please contact: Contact address of the Principal Investigator:

Name: Endashaw Almaw:

Phone number: +251-933552051

Email address: endualma2014@gmail.com

Contact address of the responsible Institutional Health Research Ethics Review Committee (IHRERC) Haramaya University: Office phone: 0254662011, P.O. Box: 235, Harar, Ethiopia

9. Declaration of informed voluntary consent: I have read/ was read to me/ the participant information sheet. I have clearly understood the purpose of the research, the procedures, the risks and benefits, issues of confidentiality, the rights of participating and the contact address for any queries. I have been given the opportunity to ask questions for things that may have been unclear. I was informed that I have the right to withdraw my child from the study at any time or not to answer any question that she does not want. Therefore, I declare my voluntary consent to allow my child to participate (be involved) in this study with my initials (signature).

Name and signature of guardian: _____Date: _____

Name and signature of Data Collector: _____ Date: _____

9.1.3 Participant information sheet and informed voluntary consent form for participants: age ≥ 18 years (Amharic Version)

(በመረጃ የተደገፈ ፈቃደኝነት መጠየቂያ ቅፅ እድሜያቸው ከ18 አመትና በላይ ለሆኑ)

1.መግቢያ

ስሜ----------እባላለሁ። በሐረማያ ዩኒቨርሲቲ፤ ሐረር ጤና እና ህክምና ሳይንስ ኮሌጅ የሁለተኛ ዲግሪውን የሚያጠናው እንዳሻው አልማው ቦታለ ለሚያደርገዉ ምርምር በመረጃ ሰብሳቢነት እሰራለሁ። ስለሆነም ስለጥናቱ የተወሰነ ማብራሪያ ተሰጥቶዎት የጥናቱ ተሳታፊ ይሆኑ ዘንድ ትኩረትዎን ሰጥተዉ በጥሞና እንዲከታተሉ በትህትና እጠይቃለሁ።

2. የጥናቱ ርዕስ

በሀረር ከተማ ዉስጥ ባለፉት 12 ወራት የወለዱ እናቶች ላይ ከእርግዝና ጋር ተያያዥ የሆኑ ኣደገኛ ምልክቶች ገጠመኝ እና ተዛማጅ ምክንያቶቻቸዉ ማጥናት ነዉ።

1. የጥናቱ አላማ

መሰረታዊ አላማዉ የሁለተኛ ዲግሪዉን በእናቶች እና ጨቅላ ህጻናት እንክብካቤ ትምህርት ለሚማረዉ ተማሪ እንዳሻው አልማው የመመረቂያ ጽሁፍ ማዘጋጀት ነዉ።ከጥናቱ የሚገኘው ውጤት በከተማው ውስጥ ለሚገኙ የጤና ባለሙያዎች፣ ሌሎች ለሚመለከታቸዉ የጤና ባለድርሻ አካላት ከእርግዝና ጋር ተያያዥ የሆኑ አደገኛ ምልክቶች ትኩረት እንዲሰጡና መፍትሄ እንዲያፈላልጉ የበኩሉን ይወጣል ተብሎ ይታሰባል።

4.የመጠይቁ አካሄድ እና የሚፈጀዉ ጊዜ

ለጥናቱ አስፈላጊውን መረጃ ለማግኘት መጠይቅ በመጠቀም ቃለ-መጠይቅ አደርግልዎታለሁ። መጠይቁ 38 ጥያቄዎችን የያዘ ሲሆን እርስዎን በመጠየቅ ይሞላል። መጠይቁ በአማካኝ 30 ደቂቃ ከመዉሰድ ዉጭ ጉዳቱ በጣም ትንሽ ነዉ። ስለሆነም ይቺን ጊዜ ካለዎት ጊዜ ቀንሰዉ ለመጠይቁ ይፈቅዱልኝ ዘንድ በትህትና እጠይቅዎታለዉ።

5.የጥናቱ ጥቅም እና ጉዳት

ይህ ጥናት ከጊዜዎ ላይ 30 ደቂቃ ከመውሰድ ውጭ ሊያመጣ የሚችለዉ ጉዳት በጣም ትንሽ ነዉ። በዚህ ጥናት በመሳተፍዎ በቀጥታ የሚያገኙት ክፍያ የለም። ነገር ግን የዚህ ጥናት ውጤት በከተማው ጤና ጽ/ቤት እቅድ አውጭ የመንግስት አካላት ጠቃሚ መረጃ ሊሰጥ ይችላል።

6. ሚስጢራዊነት

የሚሰጡን መረጃ ሚስጥራዊነት የሚጠበቅ ሲሆን እንደ ግለሰብ ተለይቶ የሚወሰድ መረጃ የለም። የጥናቱ ውጤት የህብረተሰቡን አጠቃላይ ሁኔታ እንጂ የአንድን ግለሰብ ምንም ነገር አያንጸባርቅም። የተሳታፉዎችን ስም ላለማሳየት ለመጠይቆቻችን የራሳችንን ቁጥር ሰጥተናቸዋል። የጥናቱ ተሳታፉዎችን ከምርምሩ ጋር በማጣቀስ የሚሰጥ የቃልም ይሁን የጹሁፍ ሪፖርት የለም።

7.በጥናቱ ያለዎት መብት

በዚህ ጥናት ውስጥ መሳተፍ ሙሉ በሙሉ በፈቃደኝነት ላይ የተመሰረተ ሲሆን በጥናቱ ለመሳተፍም ሆነ ላለመሳተፍ የመወሰን መብት አለዎት። በፈለጉት ጊዜ ከጥናቱ መውጣት ይችላሉ። ይህን በማድረግዎም ማግኘት የሚገባዎትን ጥቅም አያስቀርብዎትም።

8.አድራሻ

በጥናቱ ወይንም በመረጃ አሰባሰቡ ዙሪያ ጥያቄ ወይም ያልተብራራ ነገር ካለ በሚከተለው አድራሻ ያግኙን (ዋና አጥኚ እንዳሻው አልማው ኢሜል: endualma2014@gmail.com፤ ስልክ ቁጥር፡ +251933552051፤የተቋም ምርምር ስነ ምግባርና ክትትል ኮሚቴ ስልክ: 0254662011 ወይም ፖ.ሳ.ቁ 235 ሀረር)

9.ከላይ በቀረበዉ የግንዛቤ ማስጨበጫ መሰረት የጥናቱ ተሳታፊ ለመሆን የሙሉ ፈቃደኝነት ማረጋገጫ

የተሳታፊዎችን መረጃ ወረቀት አንብቤዋለሁ/ተነብቦልኛል። የጥናቱን አላማ፣ ክንዋኔ፣ ጥቅምና ጉዳት፣ ሚስጥራዊነት ፣መብት እና ለማንኛውም ጥያቄ የተሰጠውን የመገኛ አድራሻ በደንብ ተረድቼዋለሁ። ግልፅ ያልሆነ ጥያቄ ካለኝ እንድጠይቅ እድል ተሰጥቶኛል። በፈለግሁት ጊዜ ከጥናቱ መውጣት እንደምችል

እንዲሁም መመለስ የማልፈልገውን ጥያቄ መመለስ እንደሌለብኝ ተነግሮኛል። ሰለዚህ በዚህ ጥናት ለመሳተፍ ያለኝን ፈቃደኝነት ከዚህ ቀጥሎ በፊርማዬ አረጋግጣለሁ።

የተሳታፊ ስም እና ፊርማ _____ቀን _____

የመረጃ ሰብሳቢ ስም እና ፊርማ _____ ቀን _____

ስለ ትብብርዎ ከልብ እናመሰግናለን።

9.1.4 Participant information sheet and informed voluntary consent form for parents/gurdian for minor age < 18 years (Amharic version)

(በመረጃ የተደገፈ የተሳታፊዎች ፈቃደኝነት መጠየቂያና ስምምነት ቅፅ እድሜያቸዉ ከ18 አመት በታች)

1.መግቢያ

ስሜ----------እባላለሁ። በሐረማያ ዩኒቨርሲቲ፤ ሐረር ጤና እና ህክምና ሳይንስ ኮሌጅ የሁለተኛ ዲግሪውን የሚያጠናው እንዳሻው አልማው ቦታለ ለሚያደርገዉ ምርምር በመረጃ ሰብሳቢነት እሰራለሁ። ስለሆነም ስለጥናቱ የተወሰነ ማብራሪያ ተሰጥቶዎት ልጅዎ/ባለቤትዎ የጥናቱ ተሳታፊ ይሆኑ ዘንድ ትኩረትዎን ሰጥተዉ በጥሞና እንዲከታተሉ በትህትና እጠይቃለሁ።

2. የጥናቱ ርዕስ

በሀረር ከተማ ዉስጥ ባለፉት 12 ወራት የወለዱ እናቶች ላይ ከእርግዝና ጋር ተያያዥ የሆኑ ኣደገኛ ምልክቶች ገጠመኝ እና ተዛማጅ ምክንያቶቻቸዉ ማጥናት ነዉ።

3.የጥናቱ ዓላማ

መሰረታዊ አላማዉ የሁለተኛ ዲግሪዉን በእናቶች እና ጨቅላ ህፃናት እንክብካቤ ትምህርት ለሚማረዉ ተማሪ እንዳሻው አልማው የመመረቂያ ጽሁፍ ማዘጋጀት ነዉ።ከጥናቱ የሚገኘው ውጤት በከተማው ውስጥ ለሚገኙ የጤና ባለሙያዎች፣ ሌሎች ለሚመለከታቸዉ የጤና ባለድርሻ አካላት ከእርግዝና ጋር ተያያዥ የሆኑ ኣደገኛ ምልክቶች ትኩረት እንዲሰጡና መፍትሄ እንዲያፈላልጉ የበኩሉን ይወጣል ተብሎ ይታሰባል።

4. የመጠይቁ አካሄድ እና የሚፈጀዉ ጊዜ

ለጥናቱ አስፈላጊውን መረጃ ለማግኘት መጠይቅ በመጠቀም ስለ ልጅዎ ቃለ-መጠይቅ አደርግልዎታለሁ። መጠይቁ 38 ጥያቄዎችን የያዘ ሲሆን ስለልጅዎ እርስዎን በመጠየቅ ይሞላል። መጠይቁ በአማካኝ 30 ደቂቃ ይወስዳል። ስለሆነም ይቺን ጊዜ ካለዎት ጊዜ ቀንሰዉ ስለልጅዎ ለመጠየቅ ይፈቅዱልኝ ዘንድ በትህትና እጠይቅዎታለዉ።

5. አደጋዎች እና ጥቅሞች

ልጅዎ በዚህ ጥናት ውስጥ በመሳተፋቸዉ ያለዉ ጉዳት በጣም አናሳ ነዉ ። ነገር ግን ከጊዜዎ ላይ 30 ደቂቃ ብቻ ይወስዳል። በዚህ ጥናት በመሳተፍዎ በቀጥታ የሚያገኙት ክፍያ የለም። ነገር ግን የዚህ ጥናት ውጤት ለዞኑ ጤና መምሪያና ለወረዳው ጤና ጽ/ቤት እቅድ አውጭ የመንግስት አካላት ጠቃሚ መረጃ ሊሰጥ ይችላል።

6.ሚስጥራዊነት

የሚሰጡን መረጃ ሚስጥራዊነት የሚጠበቅ ሲሆን በርስዎ ዎይም በልጅዎ ላይ እንደ ግለሰብ ተለይቶ የሚወሰድ መረጃ የለም። የጥናቱ ውጤት የህብረተሰቡን አጠቃላይ ሁኔታ እንጂ የአንድን ግለሰብ ምንም ነገር አያንጸባርቅም። የተሳታፉዎችን ስም ላለማሳየት ለመጠይቆቻችን የራሳችንን ቁጥር ሰጥተናቸዋል። የጥናቱ ተሳታፉዎችን ከምርምሩ ጋር በማጣቀስ የሚሰጥ የቃልም ይሁን የጹሁፍ ሪፖርት የለም።

7. መብቶች

በዚህ ጥናት ውስጥ መሳተፍ ሙሉ በሙሉ በፈቃደኝነት ላይ የተመሰረተ ሲሆን ልጅዎ በጥናቱ ለመሳተፍም ሆነ ላለመሳተፍ የመወሰን መብት አለዎት።ልጅዎ በጥናቱ እንድትሳተፍ ከፈቀዱ በፈለጉት ጊዜ ከጥናቱ መውጣት ይችላሉ። ይህን በማድረግዎም እርስዎ ዎይም ልጅዎ ማግኘት የሚገባዎትን ጥቅም አያስቀርብዎትም።

8. አድራሻ

በጥናቱ ወይንም በመረጃ አሰባሰቡ ዙሪያ ጥያቄ ወይም ያልተብራራ ነገር ካለ በሚከተለው አድራሻ ያግኙን (ዋና አጥኚ እንዳሻው አልማው ኢሜል: endualma2014@gmail.com፤ ስልክ ቁጥር፡ +251933552051፤የተቋም ምርምር ስነ ምግባርና ክትትል ኮሚቴ ስልክ: 0254662011 ወይም ፖ.ሳ.ቁ 235 ሀረር)

9. ከላይ በቀረበዉ የግንዛቤ ማስጨበጫ መሰረት የጥናቱ ተሳታፊ ለመሆን የሙሉ ፈቃደኝነት ማረጋገጫ

የተሳታፊዎችን መረጃ ወረቀት አንብቤዋለሁ/ተነብቦልኛል። የጥናቱን አላማ፣ ክንዋኔ፣ ጥቅምና ጉዳት፣ ሚስጥራዊነት ፣መብት እና ለማንኛውም ጥያቄ የተሰጠውን የመገኛ አድራሻ በደንብ ተረድቼዋለሁ። ግልፅ ያልሆነ ጥያቄ ካለኝ እንድጠይቅ እድል ተሰጥቶኛል። ልጀን በፈለግሁት ጊዜ ከጥናቱ ማውጣት እንደምችል እንዲሁም መመለስ የማልፈልገውን ጥያቄ መመለስ እንደሌለብኝ ተነግሮኛል። ሰለዚህ ልጀ በዚህ ጥናት እንድትሳተፍ ያለኝን ፈቃደኝነት ከዚህ ቀጥሎ በፊርማዬ አረጋግጣለሁ።

የቤተሰብ ስም እና ፊርማ _____ ቀን _____

የመረጃ ሰብሳቢ ስም እና ፊርማ _____ ቀን _____

ስለ ትብብርዎ ከልብ እናመሰግናለን።

የመረጃ ሰብሳቢው ስም _____ ፊርማ ____

የቁጥጥር የበላይ ስም _____ ኮድ _____

መረጃ የተሰበሰበበት ቀን _____

9.2 English version questionnaire

Code No			
Name of data collector			
Date of data collection			
Part I: Socio-demographic factors			
No	**Questions**	**Response**	**Skip**
101	Age	_____**(**age in completed years)	
102	What is your current educational level	1. Unable to read and write 2. Read and write 3. Primary school 4. Secondary school 5. College and above	
103	What is your occupational status?	1. Housewife 2. Governmental employed 3. Self empolyed 4. Merchant 5. Others specify	
104	What is your current marital status?	1. Married 2. Single 3. Divorced/separated 4. Widowed	5.

105	What is your husband's educational status?	1. Unable to read and write 2. Read and write 3. Primary school 4. Secondary school 5. College and above	
Part II: Obstetric related factors of the women			
201	How many times did you gave birth (parity)?	----------in number	
202	Did you take any action for the sake of becoming pregnant?	1. Yes 2. No	If no, skip to Q204
203	If yes, what action you take? (Multiple response is possible).	1. Stopped or removed family planning 2. Take folic acid 3. Screen for STI 4. Screen for preexisting medical illness 5. Take iron/ ferrous 6. Take extra meal 7. Take tetanus vaccine 8. Preparing diet from different cereals 9. Others (specify)…….	
204	What was the time interval between your previous and last pregnancies?	----------in months	
204	Was your last pregnancy planned?	1. Yes 2. No	

205	Have any of your pregnancies resulted in abortion?	1. Yes 2. No	
206	Have any of your pregnancies resulted in a baby that was born dead (a stillbirth)?	1. Yes 2. No	
207	Was your last pregnancy multiple?	1. Yes 2. No	
208	Did you receive antenatal care in your last pregnancy?	1. Yes 2. No	If no, skip to Q210
209	How many times in total did you receive antenatal care?	---------- in number	
210	When did you start your first antenatal care contact?	1. Before 12 weeks 2. After 12 weeks 3. Don't remember	
211	Place of your last delivery?	1. Health facility 2. Home 3. Other(specify)	
212	Mode of delivery of your last pregnancy?	1. Vaginal delivery 2. Cesarean section	
213	Did you receive postnatal care during your last delivery?	1. Yes 2. No	
Part III: History of preexisting medical complications			
301	Do you have any illness for which you have follow up at the health facility?	1. Yes 2. No	If no, skip to Q401
302	If yes, which complication do you have?	1. Chronic hypertension 2. Diabetes mellitus	

		3. Renal disease 4. Heart disease 5. Asthma 6. Others(specify)	
Part IV: Knowledge of women about danger signs during the three periods (pregnancy,childbirth,and postpartum periods)			
401	Do you know danger signs that can endager the life of pregnant women?	1. Yes 2. No	If no skip to part V
402	What are the signs that can occur during pregnancy that could endanger the life of a pregnant woman? (circle all she mentioned) Probe: Any others?	3. Bleeding 4. Blurred vision 5. Swollen hands/face 6. Other_____	
402	What are the signs that can occur during labour/delivery that could endanger the life of a pregnant woman? (circle all she mentioned) Probe: Any others?	1. Labor lasting more than 12hrs 2. Placenta not delivered within 30 minutes 3. Excessive bleeding 4. Convulsion 5. Other_____	
403	What are the signs that can occur after delivery that could endanger the life of a woman? (circle all she mentioned) Probe: Any others?	1. Excessive bleeding 2. High fever 3. Fouel smelling lochia 4. Other_____	

Part V: Women's experience of obstetric danger signs in their last pregnancy, childbirth and in the postpartum period

501	During pregnancy, which danger sign did you experience? (multiple response is possible)	1. Bleeding 2. Blurred vision 3. Swollen hand/face 4. Other(specify)_____
502	During childbirth which danger signs did you experience? (multiple response is possible)	1. Sever bleeding 2. Labor lasting >12 hours 3. Retained placenta 4. Convulsion 5. Other(specify)_____
503	Which danger sign did you experience during postpartum period? (multiple response is possible)	1. Sever vaginal bleeding 2. Malodorous lochia 3. High gever 4. other (specify) _____
504	Did you seek care at health facility when you experience danger?	1. yes 2. no

9.3: Amharic version Questionnaire

ኮድ ቁጥር			
የመረጃ ሰብሳቢ ስም			
የመረጃ መሰብሰቢያ ቀን			
ማህበራዊ-ስነ-ህዝብ ባህሪዎች መጠይቅ			
ተ.ቁ	ጥያቄዎች	ምላሽ	
101	እድሜዎ ስንት ነው?	.....(በአመት)	እለፍ
102	የትምህርት ደረጃዎትን ቢገልፁልን?	1. ማንበብና መጻፍ የማይችል 2. ማንበብና መጻፍ የምትችል 3. የመጀመሪያ ደረጃ (1-8ኛ) 4. ሁለተኛ ደረጃ(8-12ኛ) 5. ኮሌጅ እና ከዚያ በላይ	
103	የስራ ሁኔታዎ?	1. የቤት እመቤት 2. የመንግስት ሰራተኛ 3. የግል ስራ 4. ነጋዴ 5. ሌላካለ ይገለጽ_____	
104	የትዳር ሁኔታዎ?	1. ያላገባች 2. ያገባች 3. የፈታች 4. ባል የሞተባት	
105	የትዳር አጋርዎ የትምህርት ደረጃ?	1. ማንበብና መጻፍ የማይችል 2. ማንበብና መጻፍ የሚችል 3. የመጀመሪያ ደረጃ (1-8ኛ) 4. ሁለተኛ ደረጃ 5. ኮሌጅ እና ከዚያ በላይ	
106	የቤቱ አማካይ ወርሃዊ ገቢ ምን ያክል ነዉ?	.....የኢትዮድያ ብር	
ክፍል 2: እርግዝና ቅድመ ዎሊድ/ወሊድ/ድህረ ወሊድ ጋር ተያያዥ መረጃዎች			
201	ስንት ጊዜ ወልደዋል?	.....(በቁጥር)	

202	በመጨረሻ እርግዝና ወቅት የቅድመ ፅንስ እንክብካቤ አገልግሎት አግኝተዋል?	1. አዎ 2. አላገኘሁም	መልሱ "አላገኘሁም" ከሆነ; ወደ ጥያቄ ቁጥር 204 ይለፉ
203	መልሶ አዎ ከሆነ ፣ የትኛውን የቅድመ ፅንስ እንክብካቤ አገልግሎት ነዉ ያገኙት?	1. የቤተሰብ ምጣኔ አገልግሎትማቋረጥ 2. ስር ሰደደ የጤና ችግር ምርመራ እና ህክምና 3. የአባላዘር በሽታዎችን ምርመራ እና ህክምና 4. ኤች.አይ.ቪ ኤድስ የምክር አግልግሎትና ምርመራ 5. የደም ማነስ መከላከያ መድሐኒት መዉሰድ **6.** ለቴታነስ ክትባት መዉሰድ **7.** ፎሊክ አሲድ መውሰድ **8.** የሰዉነት ክብደትን ማሰተካከል **9.** አመጋገብ ማሰተካከል **10.** ሌላ (ይግለጽ)…….....	
204	በበፊቱና በመጨረሻ ልጅዎት መካከል ስንት ወር ልዩነት አለ?	.....(በወር)	
205	የመጨረሻ እርግዝናዎ የታቀደ ነበር?	1. አዎ 2. የለም	
206	የመጨረሻ እርግዝናዎ መንታ ነበር?	1. አዎ 2. የለም	
207	ሞቶ የተወለደ ልጅ ነበርዎት?	1. አዎ 2. የለም	
208	በእርግዝና ጊዜ የቅድመ ወሊድ ክትትል ነበረዎት?	1. አዎ 2. የለም	መልሱ "**የለም**" ከሆነ; ወደ ጥያቄ ቁጥር 210 ይለፉ
209	ስንት ግዜ ቅድመ ወሊድ ክትትል አርገዋል?	..... በቁጥር	

210	በስንተኛ ወር ነዉ ክትትል የጀመሩት?	.....ወር.....ሳምንት	
211	የአሁኑን ልጅዎትን የወለዱት የት ነበር?	1. ቤት 2. ጤና ተቋም 3. ሌላ ካለ ይገለጽ~~~~	
212	የአሁኑን ልጅዎትን የወለዱበት በምን ነበር?	1. በምጥ 2. በቀዶ ጥገና	
213	ድህረ ወሊድ ክትትል አድርገዋል?	1. አዎ 2. የለም	
ክፍል 3፡ ሌሎች የጤና ችግር ጋር ተያያዥ የሆኑ መጠይቆች			
301	በሕክምና የተረጋገጠ በሽታ አለቦዎት?	□ 1. አዎ □ 2. የለብኝም	
302	አዎ ከሆነ ፣ የትኛው ዓይነት በሽታ አለብዎት? (ብዙ ምላሾች ሊኖሩ ይችላሉ)	1. ሥር የሰደደ የደም ግፊት 2. የስኪር ህመም 3. ሥር የሰደደ የኩላሊት በሽታ 4. አስም 5. የልብ በሽታ 6. ሌላ (ይግለጽ)…….....	
ክፍል 4፡ በእርግዝና፣በወሊድ ወይም ከወለዱ በኋላ ሊከሰቱ ስለሚችሉ አደገኛ ምልክቶች የተመለከቱ የዕዉቀት መጠይቆች			
401	በእርግዝና ጊዜ የሚከሰቱትን አደገኛ ምልክቶችምልክቶችያውቃሉ? የሚያዉቁትን ይጥቀሱልኝ (የጠቀሱትን በሙሉ ያክብቡ)።	1. ደም መፍሰስ 2. የዓይን ብዥታ (በግልጽ አለማየት) 3. የእጅ እና ፊት ማበጥ 4. ሌላ ካለ ይገለጽ_____	5.
402	በምጥ/በወሊድ ጊዜ ሊያጋጥሙ የሚችሉ አደገኛ ምልክቶች ያውቃሉ? የሚያዉቁትን ይጥቀሱልኝ (የጠቀሱትን በሙሉ ያክብቡ)።	1. ከፍተኛ የሆነ ደም መፍሰስ 2. ከ12 ሰዓት በላይ የቆዬ ምጥ 3. የእንግዴ ልጅ በጊዜው አለመውጣት 4. ራስን መሳት/መንቀጥቀጥ 5. ሌላ ካለ ይገለጽ_____	

403	ከወሊድ በኋላ ሊያጋጥሙ የሚችሉ አደገኛ ምልክቶች ያውቃሉ? የሚያዉቁትን ይጥቀሱልኝ(የጠቀሱትን በሙሉ ያክብቡ)።	1. ከፍተኛ ደም መፍሰስ 2. መጥፎ ሽታ ያለው የማህጸን ፈሳሽ 3. ከፍተኛ ትኩሳት 4. ሌላ ካለ ይገለጽ_____	

ክፍል አምስት፡በእርግዝና፣በወሊድ እና ከወሊድ በኋላ የተከሰቱባቸውን አደገኛ ምልክቶችን መጠየቅ		
501	በእርግዝና ጊዜ የትኞቹ አደገኛ ምልክቶች አጋጥሞዎት ያውቃል?	1. ደም መፍሰስ 2. የዓይን ብዥታ (በግልጽ አለማየት) 3. የእጅ እና ፊት ማበጥ 4. ሌላ ካለ ይገለጽ_____
502	በወሊድ/በምጥ ጊዜ የትኞቹ አደገኛ ምልክቶች አጋጥሞዎት ያውቃል?	1. ከፍተኛ የሆነ ደም መፍሰስ 2. ከ12 ሰዓት በላይ የቆዬ ምጥ 3. የእንግዴ ልጅ በጊዜው አለመውጣት 4. እራስን መሳት/ መንቀጥቀጥ 5. ሌላ ካለ ይገለጽ_____
503	ከወሊድ በኋላ በስድስት ሳምንታት ውስጥ የትኞቹ አደገኛ ምልክቶች አጋጥሞዎት ያውቃል?	1. ከፍተኛ ደም መፍሰስ 2. መጥፎ ሽታ ያለው የማህጸን ፈሳሽ 3. ከፍተኛ ትኩሳት 4. ሌላ ካለ ይገለጽ_____
504	አደገኛ ምልክት ሲያጋጥምሽ ወደ ጤና ተቋም ሄድሽ?	1. አዎ 2. የለም

እናመሰግናለን!!

9.4 Curriculum Vitae

1. Personal Identification

Full Name: Endashaw Almaw Bogale

Date of Birth: July 5, 1986 E.C

Place of Birth: Azmach, Awi Zone, Amhara Region, Ethiopia.

Sex: Male

Marital Status: married

Nationality: Ethiopian

Contact Address: Tel +251933552051

P.O. Box: 235- Haramaya University, Ethiopia

E-mail:endualma2014@gmail.com

2. Educational Background

NO	Name of school	Grade	Year in E.C
1	Azmach primary school	1-6	1995-2000
2	Addis Kidam general primary school	7-8	2001-2002
3	Addis Kidam secondary and preparatory school	9-12	2003-2006
4	Haramaya University, CHMS	BSC degree	2007-2010

3. Languge skill

NO	Language	Listening	Reading	Speaking	Writing
1	Amharic	Excellent	Excellent	Excellent	Excellent
2	English	Excellent	Excellent	Excellent	Excellent

2. Personal skill

➢I have Very Good Communicative Skills

- ➢ I possess sufficient computer skills i.e. networking, Programming, and Maintenance.
- ➢ I'm a Team player happy to work with others and share knowledge and skills.
- ➢ I am a Quick learner, keen to learn and improve my skills.
- ➢ I can work well under pressure.

3. Experiences

I have four year work experience at Harar HFSUH since 2019-2021.

4. **Trainings received**

i. Helping baby breath and helping mother to survive

ii. HTC and post-partum FP

5. Statistical software

I am familiar with a number of statistical software packages. Some of them are Microsoft Word, Excel, Power Point, Access, SPSS, Epi-data and Epi-Info.

6. References

1. Mr. Teshale mulatu assistant professor and lecturer at Haramaya University, College of Health and Medical science. Phone number: +251921867010

2. Mr. Teshager worku (BSc, MSc), and assistant professor at Haramaya University, College of Health and Medical science. Phone number: +251921843288

3. Mr. Sisay Habte (BSc, MSc,) Head of School of Nursing and midwifery Department at Haramaya University, College of Health and Medical science. Phone NO: +251911807998