



ST. PAUL HOSPITAL MILLENNIUM MEDICAL COLLEGE

SCHOOL OF PUBLIC HEALTH

GRADUATE STUDY PROGRAM

**THE ASSOCIATION BETWEEN MALE PARTNER INVOLVEMENT AND
WOMEN'S BIRTH PREPAREDNESS COMPLICATION READINESS AMONG
PREGNANT MOTHERS IN ARTUMA FURSI WOREDA, AMHARA REGION,
ETHIOPIA, 2023: A COMMUNITY-BASED UNMATCHED CASE-CONTROL
STUDY**

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SAMRAWIT ASHAGRE

ADVISORS:

- 1. MELSEW GETNET (MPH, PhD CANDIDATE)**
- 2. SIMEGNEW HANDEBO (MPH, ASSISTANT PROFESSOR)**

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Declaration

I, the undersigned, declare that the thesis comprises my own work. In compliance with internationally accepted practices, I have acknowledged and refereed all materials used in this work. I understand that non-adherence to the principles of academic honesty and integrity, misrepresentation/ fabrication of any idea/data/fact/source will constitute sufficient ground for disciplinary action by the collage and can also evoke penal action from the sources which have not been properly cited or acknowledged.

Samrawit Ashagre Wonde

Date of submission: ____/____/2023

Addis Abeba, Ethiopia

This thesis has been submitted for examination with my approval as a collage advisor

1. Melsew Getnet (Primary advisor)

Signature: _____

2. Simegnew Handebo (co-advisor)

Signature: _____

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Acronyms and Abbreviations

ANC: _____ Antenatal Care

ARHB: _____ Amhara Regional Health Bureau

BPCR: _____ Birth preparedness and complication readiness

CHIS: _____ Community Health Information System

CI: _____ Confidence Interval

EDHS: _____ Ethiopia Demographic and Health Survey

ETB: _____ Ethiopian Birr

JHPIEGO: _____ Johns Hopkins Program for International Education in Gynecology and Obstetrics

LMIC: _____ Low and Middle Income Country

MMR: _____ Maternal Mortality Rate

OR: _____ Odd Ratio

PMTCT: _____ Prevention of Mother to Child Transmission

SBA: _____ Skilled Birth Attendance

SSA: _____ Sub-Saharan Africa

ABSTRACT

Background: Male partner involvement in birth preparedness and complication readiness (BPCR) is a comprehensive package aimed at encouraging pregnant women and their families to actively prepare for and make decisions about birth. In Ethiopia male partner involvement in birth preparedness complication readiness remains a major public health challenge. However, studies with regard to the association of male partner involvement and women's birth preparedness complications readiness are scarcely available.

Objective: The main objective of this study was to assess the association between male partner involvement and women's birth preparedness complication readiness among pregnant mothers in Artuma Fursi woreda, Amhara region, Ethiopia, 2023.

Methods: A community based unmatched case-control study was conducted among 407 (214 controls and 193 cases) pregnant mothers in Artuma Fursi woreda. Data were collected by using interviewer administered structured questionnaire. The collected data were cleaned, edited and entered into Epi-Info version 7.2.5.0 and exported to SPSS version 25 software for further statistical analysis. Bivariate and multivariable logistic regression analysis was conducted. Adjusted odds ratio (AOR) with 95% confidence interval (CI) was reported and statistical significance was set at a p-value < 0.05.

Results: One hundred sixty five (85.5%) of male partners of cases were involved in birth preparedness and complication readiness but only thirty three (15.4%) of male partner of controls involved in birth preparedness and complication readiness. The odds of birth preparedness complication readiness were found to be higher among women whose male partner involved on birth preparedness complication readiness compared to those whose male partner has not involved (AOR=16.70, 95% CI: 7.29---38.26). Furthermore, husband education, gestational age, number of wives, history of stillbirth, knowledgeable about components of birth preparedness complication readiness, knowledgeable of danger signs during pregnancy, labor and delivery and postpartum period were significantly associated with birth preparedness and complication readiness, respectively.

Conclusion and Recommendation: This study identified better birth preparedness and complication readiness by pregnant women whose male partner involved on birth preparedness and complication readiness than those pregnant women whose male partner has not involved. Strategies that increase male partner involvement on birth preparedness and complication readiness are recommended to improve women's birth preparedness and complication readiness.

Keywords: Male Involvement, Birth Preparedness Complication Readiness, Pregnant Women, Ethiopia.

1. INTRODUCTION

1.1 Background of the Study

Birth preparedness and complication readiness (BPCR) is a comprehensive package aimed at promoting timely access to skilled maternal and neonatal services, as well as encouraging pregnant women and their families to actively prepare for and make decisions about delivery (1). The major BPCR elements are knowledge of danger signs; plan for where to give birth, birth attendant, transportation and saving money. In addition, a potential blood donor and a decision maker need to be identified. This is because every pregnant woman faces the risk of sudden, unpredictable complications that could end in death or injury to herself or to her infant (2).

In many societies in the world, cultural beliefs and lack of awareness inhibit preparation in advance for delivery and expected baby. Since no action is taken prior to the delivery, the family tries to act only when labor begins. The majority of pregnant women and their families do not know how to recognize the danger signs of complications. When complications occur, the unprepared family will waste a great deal of time in recognizing the problem, getting organized, getting money, finding transport and reaching the appropriate referral facility (3).

Men in low and middle income countries (LMICs) are the key decision-makers on matters that influence women's access to maternal health care services (4). In patriarchal communities such as those in most African settings, the influence of men is even more profound. Men in these settings control household resources and often make critical decisions that affect maternal health including the choice of health services (5).

Men have social and economic power, especially in Africa, and have significant control over their partner. They decide the timing and condition of sexual relation, family size, whether their partner will utilize available maternal health care. Hence this condition makes male partners participation critical if improvement in maternal health and reduction of maternal morbidity and mortality is to be realized (6).

In sub-Saharan Africa, pregnancy and childbirth continue to be viewed as solely a woman's issue (7). Birth preparedness is a relatively common strategy employed in implementing safe motherhood programs which may be affected by male partner participation because husbands were the most influential decision-maker and as the key member of the family. As key decision makers, men are central to preparations for birth (2).

In Ethiopia, husbands have strong decision-making power over their spouses both at the community and at the household level, and traditionally women have little independence in decision making process. Cultural barriers, knowledge of recognizing potential complications, and facility service factors all contribute to the husband's involvement in birth preparation and complication readiness planning (8).

Men should not be seen as passive bystanders and barriers, instead they have a unique role in promoting safe motherhood and their involvement is essential for improving birth preparedness. The patriarchy which agrees men to control women's access to and utilization of maternal health care and safe motherhood programs which may be affected by male partner participation because husbands were the most influential decision-maker and as the key member of the family (9). Despite these benefits few men participate in maternal health services (5). They should be informed of the social, economic and cultural complexities of safe motherhood as they are similarly affected, when their spouses, siblings or mothers die, they are often affected and need to understand the factors that contribute, and little support is given to men to encourage their involvement in care yet some men are receptive and eager to participate in safe motherhood (10).

Strategies of involving men in maternal health services are a critical and proven intervention for reducing maternal and neonatal mortality by ensuring safe delivery and reducing complications during childbirth. Moreover, the husbands' involvement during pregnancy helps their spouses to make timely decisions and avoid maternal delays (11).

1.2. Statement of the Problem

Globally, approximately 287,000 mothers die each year, due to pregnancy and childbirth complications. The vast majority of these maternal deaths (99%) occur in developing countries, with Sub-Saharan Africa alone accounting for 66% (12). A woman in Sub-Saharan Africa (SSA) has a 1-in-22 chance of dying over her lifetime as a result of pregnancy; this risk is more than 200 times greater than the risk of a woman in the United States (13). Worldwide, approximately 830 women die each day due to pregnancy complications, 66% of these deaths occur in Sub-Saharan Africa (14). In Ethiopia, the ratio of maternal mortality (MMR) is estimated to be 412 deaths per 100,000 live births (8).

Lack of male partner involvement in birth preparedness complication readiness plans and delays in care seeking for obstetric emergencies are main contributing factor of maternal death (9). Societal perception such as considering childbirth as a natural process, pregnancy and childbirth are women's role, preference for traditional birth attendance's care and novelty of the idea of male partner's involvement in pregnancy and birth care are considered as barriers of male partner's plan to participate in BPCR (4, 11).

Male partner involvement in birth preparedness complication readiness is very low in LMIC and in Africa (4). Similarly in Ethiopia male partner involvement in birth preparedness complication readiness is very low (3, 15, 16). One of the critical reasons why pregnant women do not has birth preparedness and complication readiness is the absence of support from their male partner, who are key decision-makers, especially in the patriarchal societies of sub-Saharan Africa (17).

However, studies done before are focused on only magnitude and associated factors of male involvement and magnitude and associated factors of BPCR separately but association between male partner involvement and women's BPCR were not studied. Male partner involvement and order of marriage with regard to multiple marriages were also not studied as a risk factor before. The use of men as study participant (asking men weather he is involving on BPCR or not) can also lead to bias and subjectivity weather he is really involved on BPCR or not. Contradicted studies have been conducted on male involvement in birth preparedness complication readiness with abundant conflicting and inconstancy in results across regions.

There was gap of information about the association between male partner involvement and women's birth preparedness complication readiness in the study area, as there was a difference in the study settings socio-cultural characteristics, political economic features, implementation of related health programs and health service uptake.

Therefore, this study was intended to bridge the research gap by assessing the association between male partner involvement and women's birth preparedness complication readiness among pregnant mothers in Artuma Fursi Woreda, Amhara region, Ethiopia.

1.3. Significance of the Study

This study will help to gain understanding of the association between male partner involvement and women's birth preparedness complication readiness. It also provide systematic information for policy makers, planners and researchers in designing and implementing successful strategies that are effective in promoting male partner involvement on maternal health which eventually leads to the improvement of the health of the women.

Finally, the health offices and health facilities of the study area get benefit from the findings of this study by clearly understanding the magnitude of the problem related to the association of male partner involvement on women's birth preparedness complication readiness to address it through effective planning and implementation strategies.

2. Literature Review

2.1. Overview of Birth preparedness and Complication readiness

A study conducted in Nepal revealed that (43.7%) of respondents had prepared at least one of the components of birth preparedness and complication readiness (18). A study conducted in India showed that 47.8% mothers had birth preparedness and complication readiness (19).

A study conducted in Nigeria revealed that 82.1% mothers in Nigeria had birth preparedness and complication readiness (20).

Studies conducted among women in Robe district, Goba district, Mizan, Jima and Adigrat Town identified a very low magnitude of birth preparedness and complication readiness that is 16.5%, 29.9%, 22.2%, 23.3% and 22.1% (3, 15, 16, 21, 22) respectively.

Study conducted in Jima showed that 73.5% of respondents planned to save money and 60.2% planned to arrange transport which were relatively better. However, only 19.9% planned to arrange blood donor, 32.4% planned to give birth in health facility and 21.9% planned to be attended by skilled attendants (22).

The study done in South Wollo and Afar region revealed that only 24.1% of currently pregnant women of second and third trimester were prepared for delivery and obstetric emergency by practicing at least three elements of BPCR (23, 24). Whereas study done in Farta district stated that the percentage of women implementing complication readiness plan and practicing birth preparedness was found to be 34% (25).

2.2. Male Involvement in Birth preparedness and Complication readiness

There is a steady move to more male involvement in pregnancy and childbirth in countries in the west. Men in the United Kingdom have been participating in maternity care. In Sweden, the value of the father's involvement in pregnancy, parent education, childbirth and the care of the newborn baby is emphasized in legislation, and the same as in Norway (26).

A systematic review and meta-analysis study in LMIC shows that the pooled results showed that 42.4%, (range from 6.6% to 86%) of male partners participated in BPCR. Among the study participants, 54% reported having saved money for delivery, whereas 44% identified skilled birth attendants. 45.8% of male partners arranged transportation and 57.2% of study participants identified health facility as a place of birth. Only 16.1% of the male partners identified potential blood donors (4). Studies showed that in low and middle income countries male engagement as an intervention improves health care utilization,

delivery at health facilities, child birth by a skilled attendant, and birth preparation and complication readiness (27). But it doesn't show the association of male partner involvement and women's birth preparedness.

Study done in Western Kenya revealed that about 45% husbands considered child-birth is a women's affair without husbands' participation. The male partners were with limited knowledge regarding complications related to child-birth, 40% thought delivery is a natural phenomenon that does not require men's participation (28). Study done in Kenya stated that although men were aware of the benefits of their involvement in maternal health, perception of pregnancy support as a female role, negative health worker attitudes, and unfriendly maternal care services limited male involvement (29). A study conducted in South-West Uganda to the final decision on location of birth taken by the woman herself 36%, woman in consultation with spouse 56% and woman together with other relative or friend 8% (30).

A Systematic review and Meta-analysis on male involvement in birth preparedness and complication readiness in Ethiopia showed that the pooled estimate of overall male involvement was 40.17% highest proportion of male involvement was observed from Addis Ababa 65.5%, followed by Tigray 44.71% (31). A study done in Mekele narrated that majority of (72.1%) husbands was aware about birth preparedness for at least five of its components. But only 60.4% of them were participated in birth preparedness during the conception and pregnancy of their child [6]. Study done in Debre Birhan Town stated that the male involvement in BPCR was 51.4% (32). In addition to inconsistency across the findings of these researches they doesn't showed us what will happen to the pregnant women when her male partner involved or not involved on her birth preparedness complication readiness.

2.3. Factors for Birth Preparedness and Complication Readiness

2.3.1 Socio-demographic factors

A study conducted in Tanzania shows that Women with primary education and above were twice as much likely to be prepared for birth and complications compared to those with no formal education (33).

Study conducted in Jima having partner who is employed or merchant increased the likelihood of preparation for birth and its complication as compared to those whose partners were farmers. Being in urban residence and having health center within two hours distance were among the higher level factors increasing birth preparedness and complication readiness. Educational status of primary or above, husband's occupation of employed or merchant, third or above wealth quintiles were among the lower level factors found to increase the likelihood of preparation for birth and its complications (22).

In study of Debre Birhan Husbands who attended tertiary education were more likely to be involved in BP/CR than those who can't read and write (32). Study done in Farta District stated that women who were urban dweller were nearly six times more likely to prepare for birth and its complication as compared to their counterparts. Women who attended secondary school and above were nearly 3 times more likely to prepare for birth and its complication readiness as compared to women who are unable to read and write (25).

2.3.2. Knowledge Related Factors

A study conducted in Tanzania shows that women who knew three or more obstetric danger signs were three times more likely to be prepared for birth and complications (33).

In the study of Farta district it is stated that knowledge of birth preparedness and complication readiness plans and Knowledge of key danger signs during pregnancy, child birth and postpartum period were significantly associated with practice of birth preparedness and complication readiness plan (25).

Study done in Farta District stated that those mothers who were knowledgeable for birth preparedness and complication readiness were nearly nine times more likely to prepare for birth and complication readiness compared to non-knowledgeable mothers. Mothers who were knowledgeable for danger signs during pregnancy, child birth and postpartum period were significantly associated with prepared for birth and its complication (25).

2.3.3. Obstetric History and Reproductive Health Factors

Study done in Sodo town showed that women who had any experience of pregnancy complications were 1.79 times more likely to be accompanied by male partner in birth preparedness and complication readiness (34). Study done in Farta district stated that women who had a history of stillbirth were three times more likely to prepare for birth and its complication. Those women who had ANC follow-up visit were nearly four times more likely to prepare for birth and its complication (25). Study done in Debrebirhan stated that those husbands who had children were more likely to be involved in BP/CR than those who had no child (32).

2.3.4. Health Service Utilization and Access Related Factors

Study done in Jima stated that frequency of antenatal care visits among the lower level factor found to increase the likelihood of preparation for birth and its complications. It also narrated that access to health center were found to have statistically significant association with BPCR practice. Women who

were from kebeles found within 2 hours travel on foot from health centre on the average were more likely to be prepared for birth and its complications (22).

Study done in Sodo Town revealed that respondent who walk more than 5 km from home to nearest health facility to have obstetric care, delivery and PNC services were 0.28 times highly accompanied by male partners compared to those who walk less than 5 km and respondent who had ANC follow-up at list once were 2.9 times more likely male involve in birth preparedness and complication readiness for obstetric referral than those had no ANC follow up (34).

2.4. Conceptual Framework

The following conceptual framework which illustrates the relationship of dependent and independent variables is derived from reviewing the literature of the study. It helps to summarize the association between dependent and independent variables (2).

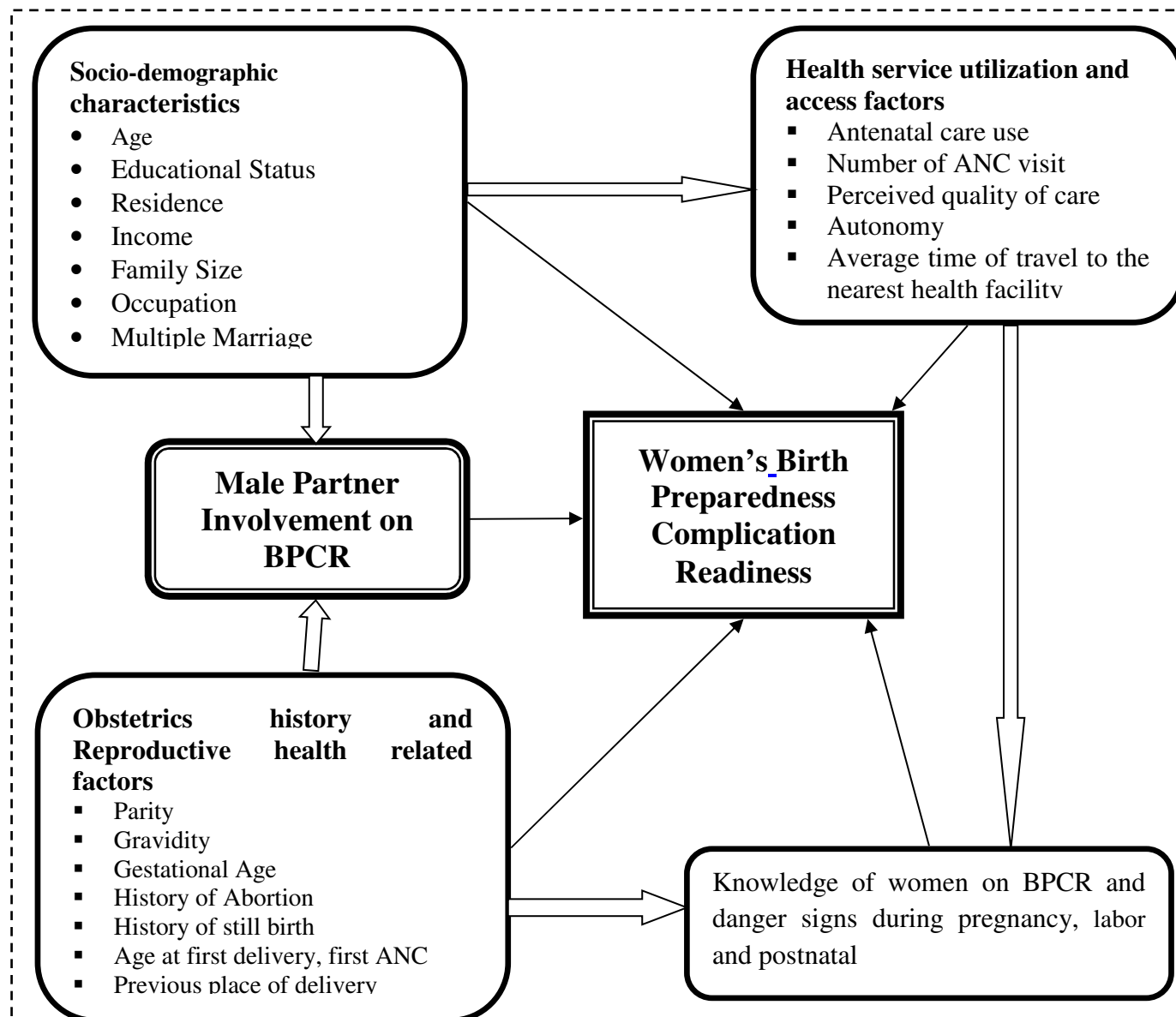


Figure 1: Conceptual frame work for the association between male partner involvement and women's birth preparedness complication readiness in Artuma Fursi Woreda, Ethiopia, May 2023 (2).

3. Objectives of the Study

3.1. General Objective

The purpose of the study was to assess the association between male partner involvement and women's birth preparedness complication readiness among pregnant mothers in Artuma Fursi Woreda, Oromo Special Zone, Amhara region, Ethiopia, in 2023.

3.2. Specific objectives

1. To determine the association between male partner involvement and women's birth preparedness complication readiness among pregnant mothers in Artuma Fursi Woreda.
2. To assess covariates associated with birth preparedness complication readiness among pregnant mothers in Artuma Fursi Woreda.

4. Methods and Materials

4.1. Study Setting and Period

The study was conducted in Artuma Fursi Woreda which is found in Oromo Special Zone, Amhara national regional state, Northeast Ethiopia. It is located 301 km away from Addis Abeba (the capital city of Ethiopia) and it has 27 kebeles of which 3 are urban kebeles and 24 are rural kebeles. The woreda has a total population of 103,509 of whom 50,823 male and 52,686 female, 15408 urban population and 88101 rural population. The reproductive age women (15_49) are 24,407 and expected pregnant mothers were more than 3488. The woreda has 24,072 households (35). There is 1 primary hospital, 6 health centers, 24 health posts and 11 private clinics.

Most of Artuma Fursi population is farmers and pastoralists. The languages spoken are Amharic and Afan Oromo. The predominant ethnic groups are Amhara and Oromo whereas 97.76% of the population was Muslims (35). The study was conducted from March 27 to April 19, 2023 in Artuma Fursi woreda, Oromo Special Zone, Amhara, Ethiopia 2023.

4.2. Study Design

A community based unmatched case-control study was conducted.

4.3. Study Population

4.3.1 Source Population

The source population was all pregnant mothers in Artuma Fursi woreda.

4.3.2 Study Population

The cases were second and third trimester pregnant mothers who were measured to have birth preparedness complication readiness in the selected kebeles of Artuma Fursi woreda during the study period. Whereas, the controls were second and third trimester pregnant mothers who were measured to have no birth preparedness and complication readiness in the selected kebeles of Artuma Fursi woreda during the study period.

4.4. Eligibility Criteria

4.4.2. Inclusion criteria

To measure the practice of BPCR, women who has late gestational age (second and third trimester), living with their husbands, permanent residents of Artuma Fursi woreda (i.e., were residents for >6 months) and volunteer to participate was included in the study.

4.4.2. Exclusion criteria

All women who were critically ill and unable to communicate during data collection period were excluded from this study.

4.5. Sample Size Determination and Sampling Procedures

4.5.1. Sample Size Determination

The sample size was calculated using double population proportion sample size calculation formula by considering: control to case ratio $r=1$; Proportion of controls with exposure (58.7%); Proportion of cases with exposure (41.3%) from a study carried out in South Wollo, Ethiopia (24); 95% level of confidence; 80% power and 10% non-response rate and a design effect of 1.5. Final sample size was 428 (214 cases and 214 controls).

4.5.2. Sampling Technique and Procedures

A multi-stage sampling technique was employed to select study subjects. Since Artuma Fursi woreda has both urban and rural kebeles all kebeles in the woreda was stratified in to urban and rural. Artuma Fursi woreda has a total of 27 kebeles of which 24 are rural kebeles and 3 are urban kebeles. By considering kebeles as primary sample unit total of 8 kebeles (one kebele from urban and seven kebeles from rural) were selected using the lottery method. The total 428 samples were allocated proportionally to this kebeles based on size of second and third trimester pregnant women in each kebeles, 816 2nd and 3rd trimester pregnant mothers (by using respective health post's integrated pregnant mother registration as a source).

Finally, systematic random sampling was employed to select the study participants in each kebele. Prior to the introduction of the main questionnaire two questions (the 1st question measuring knowledge of participant on components of BPCR and the 2nd question identifying BPCR arrangements made by the mother for the current pregnancy) were asked to identify the cases and controls.

The sampling interval of the households in each kebele was determined by dividing the total number of households with eligible mothers, 816 to the allocated sample size, 428. The first household was selected by simple random sampling lottery method from their order of community health information system (CHIS) house hold number and every 2nd pregnant women of second and third trimester pregnancy were included in the study. In a case when the study participants were not able to be interviewed for some reason, the subject in the next coded house was interviewed.

When the desired number of samples was not attained with 2nd interval and when cases and controls can not be proportional across householdes we used lottery method on unreached households with systematic sampling. In all rural kebeles all 2nd and 3rd trimester pregnant mothers were asked the 2 survey questions to identify whether they were prepared for BPCR or not and the expected number of cases were not attained.

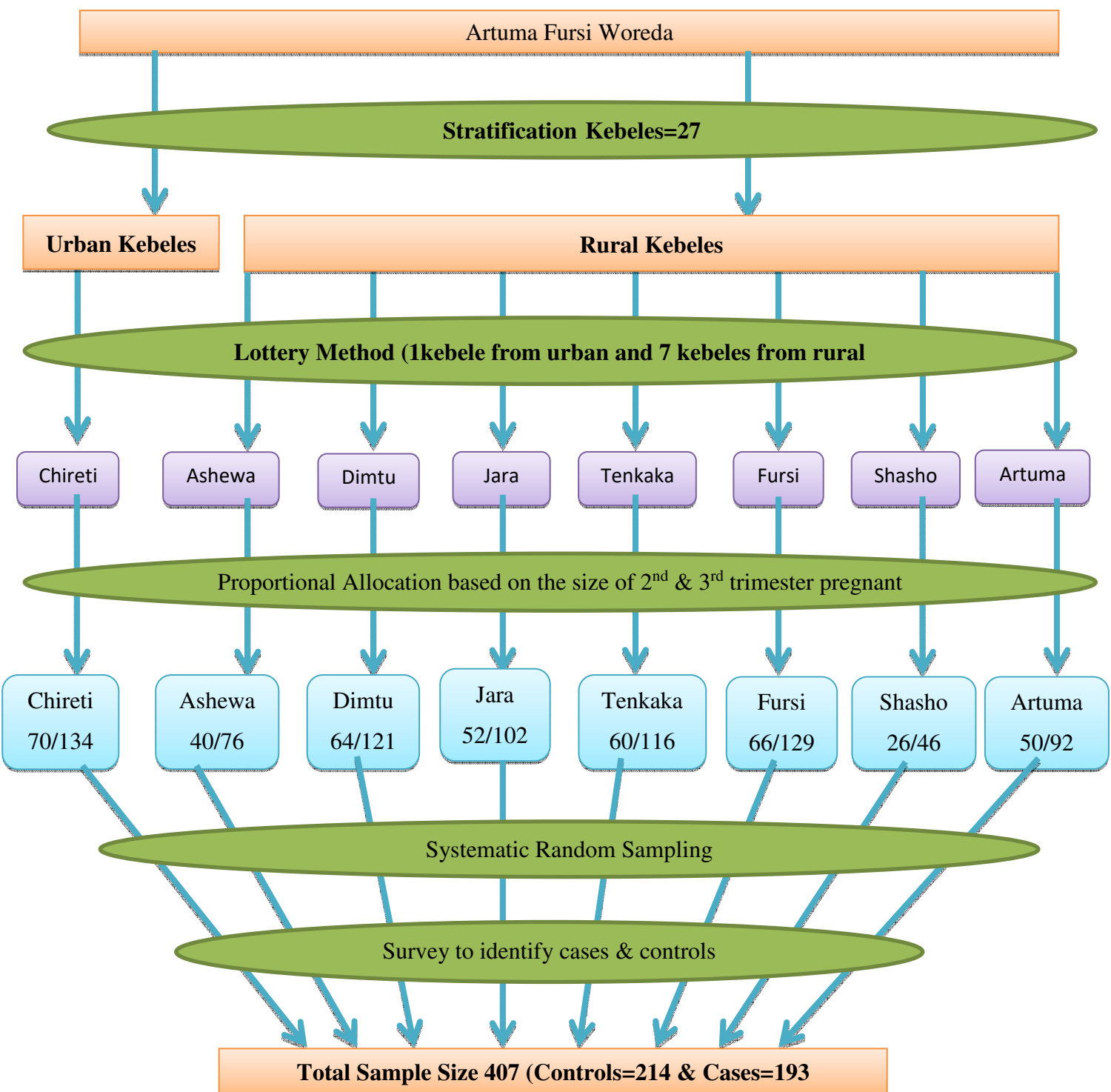


Figure 2: Diagrammatic representation of sampling procedures to select samples from Artuma Fursi Woreda, Amhara Region, Ethiopia, in May 2023

4.6. Study Variables

Dependent variable: Women's Birth Preparedness Complication Readiness

Independent variable: Male Partner Involvement

Covariates

Socio-demographic Factors: Age, Educational Status, Place of Residence, Occupation, Religion, Family Perceived Income Status, Ethnicity, Family size of both mother and husband and multiple marriage.

Obstetric History and Reproductive Health Factors: Parity, Gravidity, Gestational Age, History of Abortion, History of still birth, other history of past Obstetrics complications, Age at first delivery, previous place of delivery, Gestational age at the first ANC.

Health service utilization and access related factors: ANC use, Number of ANC visit, Perceived quality of care, Autonomy, Average time of travel to the nearest health facility, Knowledge of availability of free ambulance transportation, free ANC and delivery Service.

Knowledge Related Factors: Knowledge of women on birth preparedness and complication readiness. Knowledge of women on key danger signs of pregnancy, labor and postpartum period.

4.7. Data Collection Method, Tool and Procedures

Data were collected by using pretested interviewer administered structured questionnaire by face to face interview. The data collection tools were adapted from the survey tools developed by JHPIEGO Maternal and Neonatal Health Program (2) and from reviews of different relevant literatures and variables identified to be measured. The survey was consisted of questions that assess socio-demographic background, obstetric and reproductive history, health service utilization and access related factors, male involvement, women's birth preparedness and complication readiness.

Pre-testing was done with 22 (5%) of the total samples, in a similar area (Hula Tukye kebele) that were not included in the study. Reliability test was done and the result was a Cronbach alpha=0.836. After the pre- test has done, unclear questions and options of answers were omitted and additional options of answers had inserted. Participants were interviewed by sixteen health extension workers who was selected based on their ability to speak the local languages both Amharic and Afan Oromo. Two health professionals were supervised the whole data collection process. Data collectors and supervisors were trained for two days about the objective and process of data collection, relevance and benefits of the study, confidentiality of information, respondent's right, informed consent and technique of interview.

First the selected mother was asked two questions on components of BPCR and arrangements she has made for BPCR to identify whether the woman is prepared (case) or not prepared (control). The first question was asked for not to introduce information for the next questions on knowledge of components of BPCR. After identifying the woman whether she was case or controls the remaining questions on socio-demographic background, obstetric and reproductive history, health service utilization and access related factors, male involvement, women's birth preparedness complication readiness was collected immediately.

4.8. Operational Definitions

Those women who practiced at least three of the five BPCR components (Identifying the place of the delivery, skilled birth attendant, blood donor, means of transport and saving money) were considered "prepared for birth and its complication" (2).

Those women who mentioned at least three of the five BPCR components (Identifying the place of the delivery, skilled birth attendant, blood donor, means of transport and saving money) were considered knowledgeable about BPCR (2)

Those women who mentioned at least two of the three key danger signs for pregnancy (vaginal bleeding, swollen hands/face, and blurred vision) were considered knowledgeable about key danger signs of pregnancy (2).

Those women who mentioned at least three of the key four danger signs for labor/childbirth (severe vaginal bleeding, prolonged labor (>12 hours), convulsion, and retained placenta) were considered knowledgeable about key danger signs of labor/childbirth (2).

Those women who mentioned at least two of the three key danger signs for postpartum (severe vaginal bleeding, foul-smelling vaginal discharge, and high fever) were considered knowledgeable about the key danger signs of postpartum (2).

Those male partners who involved on at least three of the five BPCR components (Identifying the place of the delivery, skilled birth attendant, blood donor, means of transport and saving money) were considered as involved on women's birth preparedness complication readiness (2).

A skilled care provider/attendant is a professional caregiver who has the knowledge and skills to manage labor, childbirth, and the postpartum period (3).

The postpartum period was defined as a time starting from the delivery of the placenta up to 6 weeks (3).

4.9. Data Quality Control

Data quality was ensured during instrument development, collection, coding, entry and analysis. The questionnaire was first prepared in English and then translated into Amharic & Afan Oromo and back translated to English to keep the consistency of the data. Pre-testing was done with 22 (5%) of the total samples, in a similar area (Hula Tukye kebele) that were not included in the study. Reliability test was done and the result was a Cronbach alpha=0.836. After the pre- test has done, unclear questions and answers were omitted and additional option of answers had inserted. Data collectors and supervisors were trained for two days about the objective and process of data collection, relevance and benefits of the study, confidentiality of information, respondent's right, informed consent and technique of interview. The principal investigator was strictly followed the overall data collection activities.

4.10. Data Processing and Analysis

The collected data was cleaned, coded and entered into Epi-Info version 7.2.5.0 and exported to SPSS version 25 software for analysis. The study variables were presented using the relevant descriptive statistics. Bivariate analysis between dependent and independent variables were performed separately to determine the effects of male involvement (the main exposure variable) and other covariates on the outcome variable (birth preparedness and complication readiness) using cross tabulation. Variable with $\alpha < 0.2$ on bivariate analysis was candidates for multivariate binary logistic regression analysis. Finally multivariable analysis using multiple logistic regression technique was computed to evaluate independent effect of each variable on women's BPCR. The model fitness was checked using Hosmer and Lemeshow (sig=.712) and Omnibus tests (sig=.000). A multi-collinearity test was carried out to check the presence of correlation between independent variables and no collinearity effects were detected and the value of the Variance Inflation Factor (VIF) was all <10 . The direction and strength statistical association was measured by odds ratio (OR) along with the 95% confidence interval (CI). A $P < 0.05$ was considered to declare statistical significance.

4.12 Ethical Consideration

Ethical approval (Reference number pm23/444 written on 21/2/2023.G.C) was obtained from ethical review board of St.Pawul's Hospital Millennium Medical College. Written informed consent was obtained from all study participants after explaining in detail about the study and its objectives. The study has no risk and negative consequences on the participants. Participants were informed that they

can discontinue or decline to participate in the study at any time. Confidentiality of the information was maintained throughout the study and access to the collected information was limited to the principal investigator. A written official permission letter was also obtained from respective administrative bodies of the study area.

5. Results

5.1. Socio-Demographic Characteristics

A total of four hundred seven (193 cases and 214 controls) were included in the study making the response rate 95.1%. The median and mean ($\pm$ standard deviation) age of 27 & 27.52 ($\pm$ 5.1) and 26 & 26.74 ($\pm$ 4.5) years for the cases and the controls respectively. Around one hundred one (52.3%) husbands of cases were in the age group of 30 and above years and one hundred sixteen (54.2%) husbands of controls were in the age group of less than 30 years old. Two hundred eighty eight (70.8%), one hundred fourty one (73.1%) cases and one hundred fouty seven (68.7%) controls of the respondents ethnicity were Oromo. Three hundred ninty six (97.3%), one hundred eighty seven (96.9%) cases and two hundred nine (97.7%) controls of the respondent's religion were Muslim. Two hundred thirty (56.5%), ninty one (47.2%) cases and one hundred thirty nine (65.0%) controls can't read and write. Two hundred seventy three households (67.1%), 122 (63.2%) households with cases and one hundred fifty one (70.6%) households with controls estimated monthly income were between 5000-7999 Ethiopian birr (ETB). Ninety six (23.6%) husbands, twenty seven (14.0%) husbands of cases and sixty nine (32.2%) husbands of controls has two or more wives and thirty (7.4%), nine (4.7%) cases and twenty one (9.8%) of the respondents were 2nd and 3rd order wives.

Table 1: Socio-Demographic Charactersics of the study participants in Artuma Fursi Woreda, Amhara Region, Ethiopia, in July 2023

Variables	Controls N (%)	Cases N (%)	Total (%)	P-value
Age of Woman				
<20	21 (9.8)	21 (10.9)	42(10.3)	P-value=0.112
20-24	48 (22.4)	34 (17.6)	82(20.1)	
25-29	85 (39.7)	63 (32.6)	148(36.4)	
30-34	46 (21.5)	51 (26.4)	97 (23.8)	
>=35	14 (6.5)	24 (12.4)	38 (9.3)	
Age of Husband				

<30	52 (24.3)	38 (19.7)	90 (22.1)	P-value=0.249
30-39	116 (54.2)	101 (52.3)	217 (53.3)	
>=40	46 (21.5)	54 (28.0)	100 (24.6)	
Place of Residence				
Urban	34 (15.9)	36 (18.7)	70 (17.2)	P-Value=0.460
Rural	180 (84.1)	157 (81.3)	337 (82.8)	
Women's Religion				
Orthodox	3 (1.4)	3 (1.6)	6 (1.5)	P-Value=0.844
Muslim	209 (97.7)	187 (96.9)	396 (97.3)	
Protestant	2 (0.9)	3 (1.6)	5 (1.2)	
Women's Ethnicity				
Amhara	67 (31.3)	52 (26.9)	119 (29.2)	P-Value= 0.334
Oromo	147 (68.7)	141 (73.1)	288 (70.8)	
Husband's Ethnicity				
Amhara	66 (30.8)	57 (29.5)	123 (30.2)	P-Value=0.774
Oromo	148 (69.2)	136 (70.5)	284 (69.8)	
Women's Educational level				
Can't read and write	139 (65.0)	91 (47.2)	230 (56.5)	P-Value=0.001
Read and write	9 (4.2)	13 (6.7)	22 (5.4)	
Primary	59 (27.6)	66 (34.2)	125 (30.7)	
Secondary	4 (1.9)	12 (6.2)	16 (3.9)	
Collage and above	3 (1.4)	11 (5.7)	14 (3.4)	
Husband's Educational level				
Can't read & write	127 (59.3)	80 (41.5)	207 (50.9)	P-Value=0.000
Read and write	42 (19.6)	29 (15.0)	71 (17.4)	
Primary	29 (13.6)	54 (28.0)	83 (20.4)	
Secondary	9 (4.2)	17 (8.8)	26 (6.4)	
Collage and above	7 (3.3)	13 (6.7)	20 (4.9)	
Women's Employment Status				
Farmer	9 (4.2)	8 (4.1)	17 (4.2)	
Merchant	10 (4.7)	8 (4.1)	18 (4.4)	

Housewife	192 (89.7)	164 (85.0)	356 (87.5)	P-Value=0.053
Gov.t employee	3 (1.4)	13 (6.7)	16 (3.9)	
Husband's Employment Status				
Farmer	147 (68.7)	130 (67.4)	277 (68.1)	P-Value=0.571
Merchant	49 (22.9)	47 (24.4)	96 (23.6)	
Gov.t employee	7 (3.3)	10 (5.2)	17 (4.2)	
Other	11 (5.1)	6 (3.1)	17 (4.2)	
Estimated Monthly Income				
<5000	44 (20.6)	46 (23.8)	90 (22.1)	P-Value=0.238
5000-7999	151 (70.6)	122 (63.2)	273 (67.1)	
>=8000	19 (8.9)	25 (13.0)	44 (10.8)	
Family Size				
2-4	107 (50.0)	102 (52.8)	209 (51.4)	P-Value=0.563
5-7	90 (42.1)	72 (37.3)	162 (39.8)	
>7	17 (7.9)	19 (9.8)	36 (8.8)	
Number of Wives				
1	145 (67.8)	166 (86.0)	311 (76.4)	P-Value=0.000
>=2	69 (32.2)	27 (14.0)	96 (23.6)	
Order of wife				
1 st	193 (90.2)	184 (95.3)	377 (92.6)	P-Value=0.047
2nd and Above	21 (9.8)	9 (4.7)	30 (7.4)	

5.2. Obstetric History and Reproductive Health

Three hundred fifty one of four hundred seven mothers gave birth previously and of those three hundred fifty one, one hundred forty five (41.3%) mothers fifty four (28.0%) cases and ninety one (42.5%) controls gave birth at home. Facility delivery is 56.7%. About fifty one (12.5%) of respondents, thirty eighty (19.7%) cases and thirteen (6.1%) controls has history of stillbirth. One hundred six (26.0%) of respondents has history of abortion and of this sixty two (32.1%) cases and forty four (20.6%) controls has history of abortion.

Table 2: Obstetric History and Reproductive Health Charactersics of the study participants in Artuma Fursi Woreda, Amhara, Ethiopia, 2023

Variables	Controls N (%)	Cases N (%)	Total N (%)	P-value
Place of delivery for Previous Baby				
Health Facility	92 (43.0)	114 (59.1)	206 (50.6)	P-Value=0.003
Home	91 (42.5)	54 (28.0)	145 (35.6)	
It's my first pregnancy	31 (14.5)	25 (13.0)	56 (13.8)	
History of Stillbirth				
No	201 (93.9)	155 (80.3)	356 (87.5)	P-Value=0.000
Yes	13 (6.1)	38 (19.7)	51 (12.5)	
History of Abortion				
No	170 (79.4)	131 (67.9)	301 (74.0)	P-Value=0.008
Yes	44 (20.6)	62 (32.1)	106 (26.0)	
Other Complications During the Previous Pregnancies				
No	205 (95.8)	173 (89.6)	378 (92.9)	P-Value=0.016
Yes	9 (4.2)	20 (10.4)	29 (7.1)	
List of other Complications During the Previous Pregnancy				
Anemia	2 (0.9)	5 (2.6)	7 (1.7)	
Bleeding	3 (1.4)	6 (3.1)	9 (2.2)	
DM	1 (0.5)	0 (0.0)	1 (0.2)	
Mental Disorder	0 (0.0)	1 (0.5)	1 (0.2)	
PIH	3 (1.4)	8 (4.1)	11 (2.7)	
Number of pregnancies including the current one				
1	30 (14.0)	17 (8.8)	47 (11.5)	P-Value=0.256
2-4	105 (49.1)	99 (51.3)	204 (50.1)	
>=5	79 (36.9)	77 (39.9)	156 (38.3)	
Gestational Age of the current pregnancy				
<=24	146 (68.2)	53 (27.5)	199 (48.9)	P-Value=.000
>24	68 (31.8)	140 (72.5)	208 (51.1)	
Total number of Children in the family				
0	32 (15.0)	27 (14.0)	59 (14.5)	P-Value=0.513
1-2	75 (35.0)	76 (39.4)	151 (37.1)	
3-4	72 (33.6)	53 (27.5)	125 (30.7)	

>=5	35 (16.4)	37 (19.2)	72 (17.7)	
Age of the Women at first delivery				
<=18	95 (52.2)	87 (51.8)	182 (52.0)	P-Value=0.939
>18	87 (47.8)	81 (48.2)	168 (48.0)	

5.3. Health service utilization and access

Three hundred seventy five (92.1%), one hundred ninty two (99.5%) cases and one hundred eighty three (85.5%) controls were started ANC visit for the current pregnancy. There is no difference in GA of starting ANC visit among cases and controls but Cases has more ANC visit than controls. Only nine (4.2%) controls have 4 and more ANC visits whereas thirty six (18.7%) cases have >=4 ANC visits. Thirty nine (18.2%) controls and twenty two (11.4%) cases think that there were no quality care provisions in the nearest health facilities. Seventeen (7.9%) controls and five (2.6%) cases didn't know the availability of free ambulance service for pregnant mothers. Seventeen (7.9%) controls and five (2.6%) cases didn't know the availability of free ANC and delivery service for pregnant mothers. It takes more than thirty minutes for sixty seven (31.3%) controls and fourty five (23.3%) cases to reach the health facility. Fifty four (25.2%) controls and fourty two (21.8%) cases made decision for obstetric service seeking to go to health facility.

5.4. Birth Preparedness and Complication Readiness Knowledge

One hundred sixty six (77.6%) controls and one hundred eighty nine (97.9%) cases have heard about the term BPCR before. Main source of information were HEWs and midwiferies. More cases, 110(57.0%) were knowledgeable than controls twenty nine (13.6%) about BPCR. More cases, one hundred forty eight (76.7%) were knowledgeable of danger sign during pregnancy than controls fifty one (23.8%). More cases, one hundred fifty three (79.3%) were knowledgeable of danger sign during labor and delivery than controls fourty nine (22.9%). More cases, eighty six (44.6%) were knowledgeable of danger sign during postpartum than controls twenty two (10.3%).

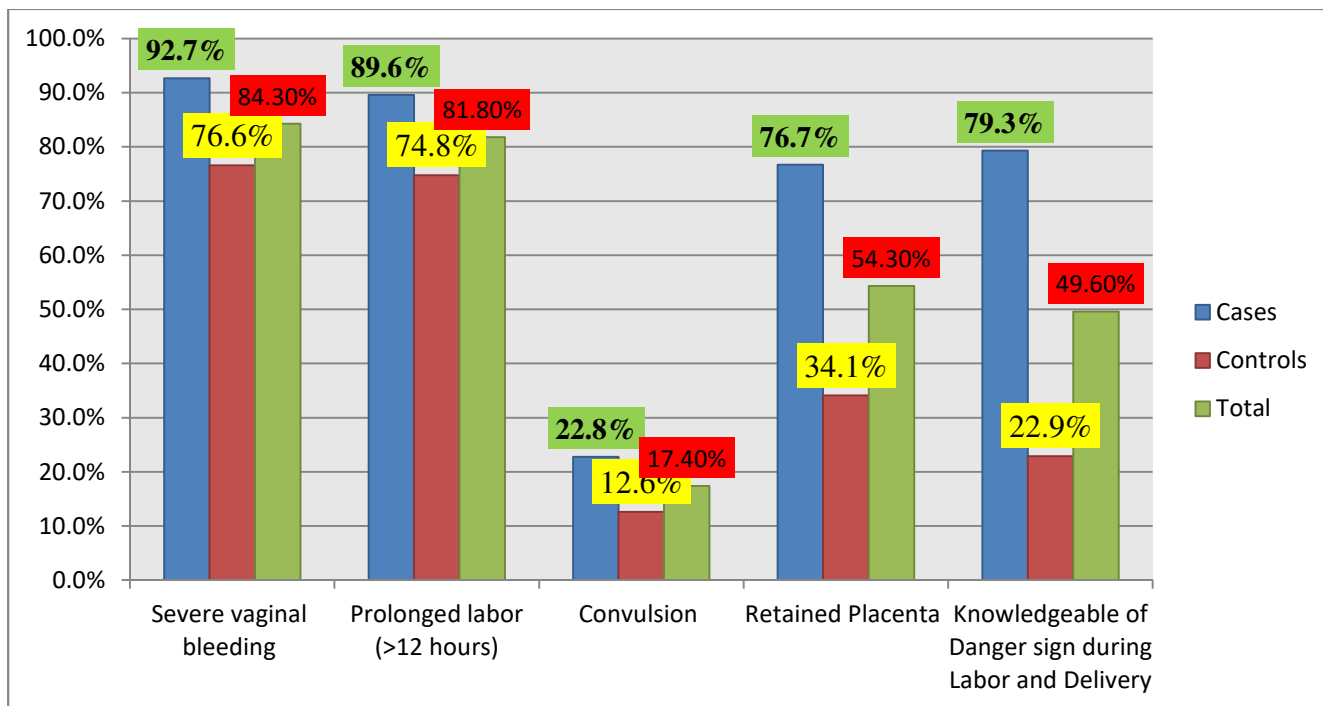


Figure 3: Knowledge of danger signs during labor and delivery of the study participants in Artuma Fursi Woreda, Amhara, Ethiopia, 2023

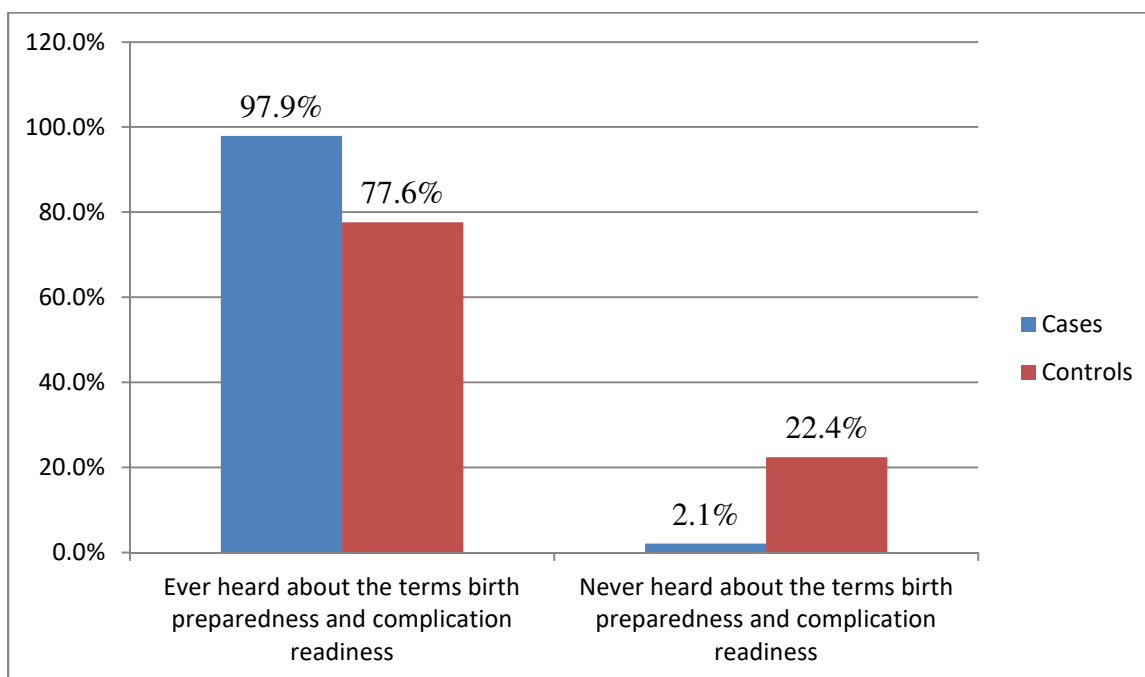


Figure 4: Whether the study participant have ever heard the term birth preparedness or not in Artuma Fursi Woreda, Amhara, Ethiopia, 2023

Table 3: Knowledge of Birth Preparedness and Complication Readiness of the study participants in Artuma Fursi Woreda, Amhara, Ethiopia, 2023

Variables	Controls N (%)	Cases N (%)	Total N (%)	P-value
Knowledge of components of BPCR				
Not Knowledgeable of BPCR	185 (86.4)	83 (43.0)	268 (65.8)	P-Value=.000
Knowledgeable of BPCR	29 (13.6)	110 (57.0)	139 (34.2)	
Knew to identify place of delivery	187 (87.4)	189 (97.9)	376 (92.4)	
Knew to identify skilled birth attendant	6 (2.8)	33 (17.1)	39 (9.6)	
Knew to identify blood	0 (0.0)	4 (2.1)	4 (1.0)	
Knew to identify means of transportation	42 (19.6)	113 (58.5)	155 (38.1)	
Knew to save money	99 (46.3)	147 (76.2)	246 (60.4)	
Didn't know any components of BPCR	6 (2.8)	1 (0.5)	7 (1.7)	
Knowledge of danger signs during pregnancy				
Not Knowledgeable of Danger sign during Pregnancy	163 (76.2)	45 (23.3)	208 (51.1)	P-Value=.000
Knowledgeable of Danger sign during pregnancy	51 (23.8)	148 (76.7)	199 (48.9)	
Vaginal Bleeding	184(86.0)	182 (94.3)	366 (89.9)	
Swelling of hand and face	51 (23.8)	141 (73.1)	192 (47.2)	
Blurring of Vision	32 (15.0)	60 (31.1)	92 (22.6)	
Didn't know any danger signs during pregnancy	12 (5.6)	0 (0.0)	12 (2.9)	

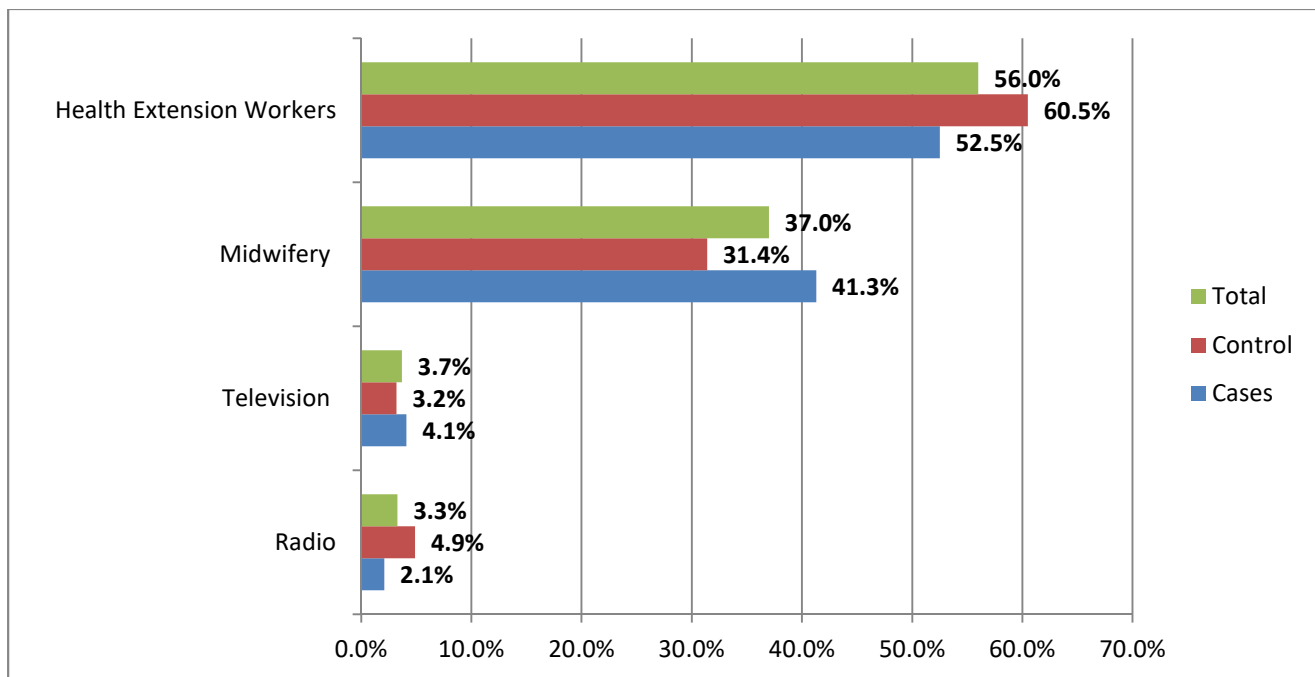


Figure 5: Source of information of the study participants about birth preparedness and complication readiness, in Artuma Fursi Woreda, Amhara, Ethiopia, 2023

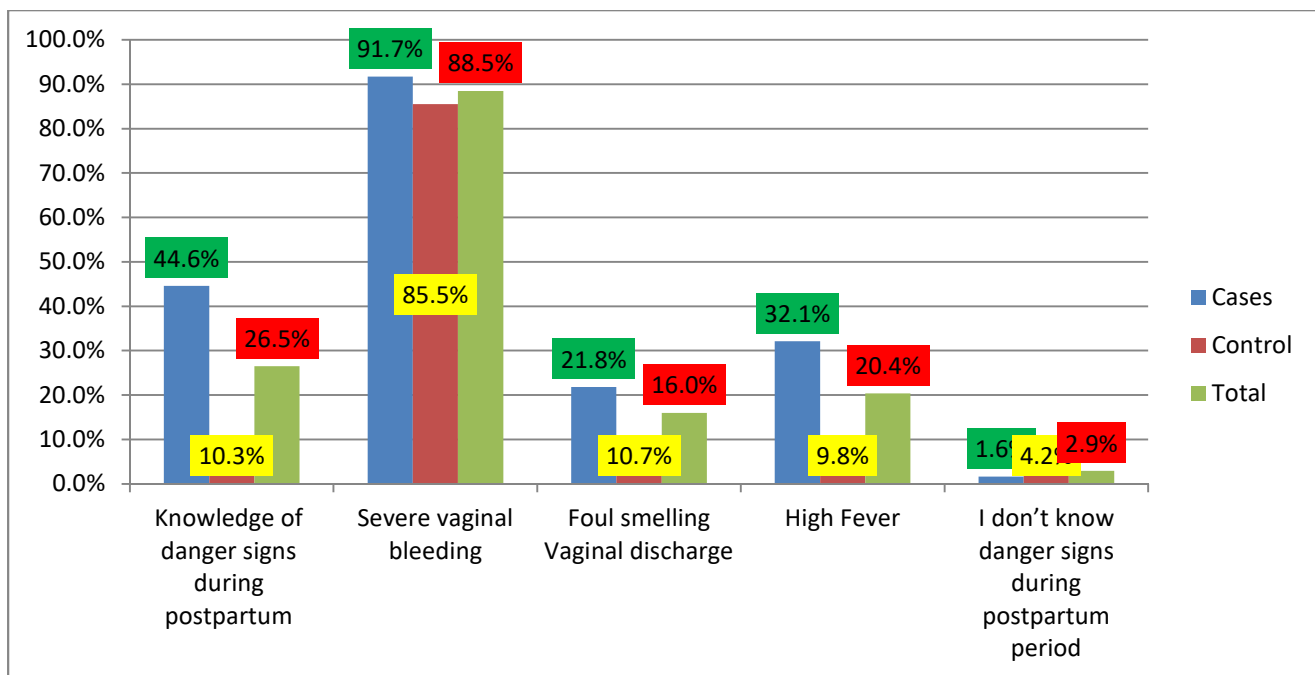


Figure 6: Knowledge of danger signs during postpartum of the study participants in Artuma Fursi Woreda, Amhara Region, Ethiopia, 2023

5.5. Women's Birth Preparedness and Complication Readiness

All one hundred ninety three (100%) cases were identified place of delivery whereas 186(86.9%) controls have identified place of delivery. All one hundred ninety three (100%) cases were made at least three arrangements whereas twenty five (11.7%) controls made no arrangement for the birth of current pregnancy.

Table 4: Birth Preparedness and Complication Readiness of the study participants in Artuma Fursi Woreda, Amhara, Ethiopia, 2023

Variable	Controls N (%)	Cases N (%)	Total N (%)	P-Value
Identified place of delivery				
No	28 (13.1)	0 (0.0)	28 (6.9)	
Yes	186 (86.9)	193 (100.0)	379 (93.1)	
Planned to give birth at				
Health Center	184 (98.9)	179 (92.7)	363 (95.8)	
Hospital	2 (1.1)	14 (7.3)	16 (4.2)	
Identified skilled provider				
No	197 (92.1)	118 (61.1)	315 (77.4)	
Yes	17 (7.9)	75 (38.9)	92 (22.6)	
Identified transportation				
No	147 (68.7)	6 (3.1)	153 (37.6)	
Yes	67 (31.3)	187 (96.9)	254 (62.4)	
Means of transportation identified				
Ambulance car	44 (65.7)	134 (71.7)	178 (70.1)	
Traditional Ambulance	0 (0.0)	9 (4.8)	9 (3.5)	
Private Transport	23 (34.3)	44 (23.5)	67 (26.4)	
Saved money				
No	186 (86.9)	38 (19.7)	224 (55.0)	
Yes	28 (13.1)	155 (80.3)	183 (45.0)	
Amount of money saved				
<2500	11 (39.3)	43 (27.7)	54 (29.5)	
2500-4999	17 (60.7)	96 (61.9)	113 (61.7)	
>=5000	0 (0.0)	16 (10.3)	16 (8.7)	

Identified blood donor				
No	214 (100.0)	176 (91.2)	390 (95.8)	
Yes	0 (0.0)	17 (8.8)	17 (4.2)	
Blood donor				
Husband	0 (0.0)	13 (76.5)	13 (76.5)	
Other family member	0 (0.0)	3 (17.6)	3 (17.6)	
Friend/Neighbor	0 (0.0)	1 (5.9)	1 (5.9)	
I made no arrangement for the birth of this child				
	25 (11.7)	0 (0.0)	25 (6.1)	

5.6. Male partner involvement on women's Birth Preparedness Complication Readiness

One hundred sixty five (85.5%) husbands of cases were involved in BPCR but only thirty three (15.4%) of husbands of controls involved in BPCR.

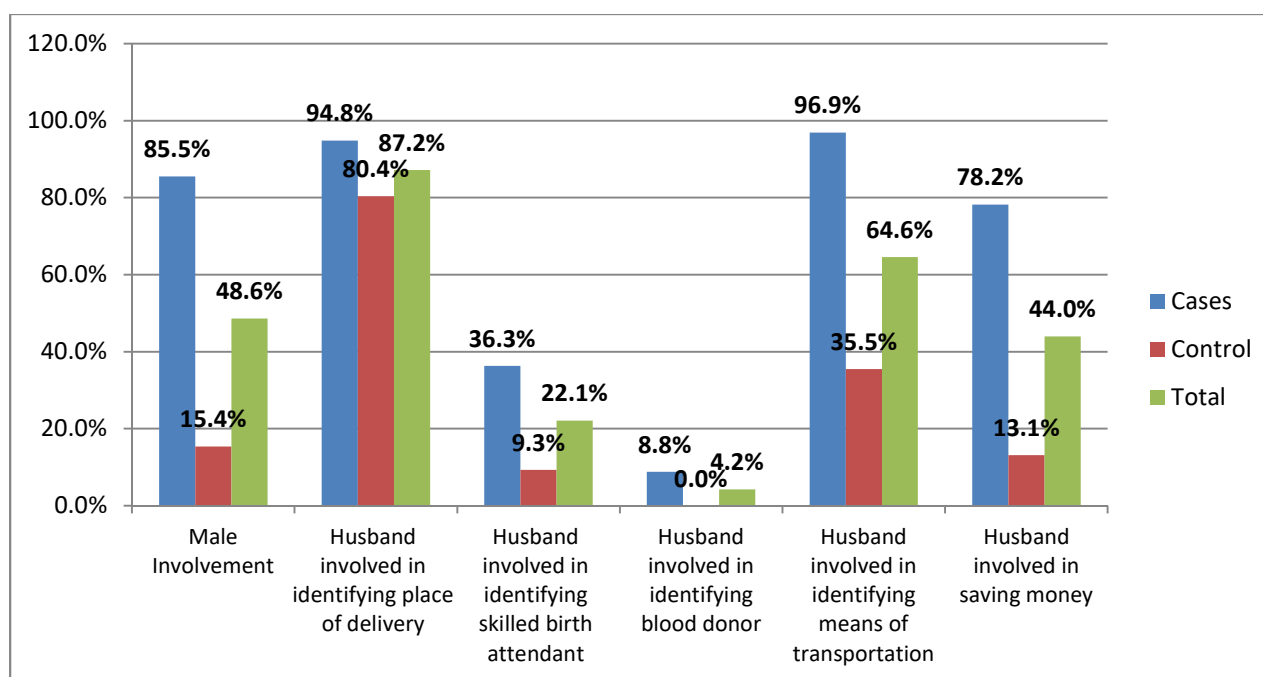


Figure 7: Male involvement on Birth Preparedness and Complication Readiness of the husband's of the study participants in Artuma Fursi Woreda, Amhara, Ethiopia, 2023

5.7. The Association of Male Partner Involvement and other Factors with women's birth preparedness complication readiness

Male involvement, gestational age of the current pregnancy, history of abortion, history of Stillbirth, history other complications, order of wife, number of wives, age of woman, women's employment status, women's educational level, place of delivery for previous baby, husband's educational status, knowledge of components of BPCR, knowledge of danger signs during pregnancy, knowledge of danger signs during labor and delivery, knowledge of danger signs during postpartum, being started ANC visit, number of ANC visits for the current pregnancy, time to reach to the health facility, perception of quality care provision, being heard ever about the terms BPCR, being aware about the availability of free ANC and delivery service, being aware about the availability of free ambulance service having $P < 0.2$ were variables candidate for multivariate logistic regression analysis.

On multivariable logistic regression analysis the odds of birth preparedness complication readiness were found to be higher among women whose male partner involved on birth preparedness complication readiness compared to those whose male partner has not involved on birth preparedness complication readiness (AOR = 16.71, 95 % CI: 7.30, 38.26).

Furthermore, age of women, husband education, gestational age, number of wives, history of stillbirth, ever heard about the terms BPCR, knowledgeable about component of BPCR, knowledgeable of danger signs during pregnancy, labor and delivery and postpartum respectively were significantly associated with birth preparedness and complication readiness.

The odds of birth preparedness and complication readiness of respondents, whose husband attend primary and secondary education were nearly three and five times higher than those whose husbands cannot read and write respectively (AOR=4.66, 95%, CI: 1.09--20.01).

The odds of birth preparedness and complication readiness of respondents who were in the third trimester of pregnancy were nearly sixteen times higher than those in second trimester of pregnancy (AOR=15.64, 95% CI: 5.96--41.00).

Respondents whose husbands have only one wife were nearly 5 times more likely to have birth preparedness complication readiness than those whose husband has more than one official wives (AOR=4.57, 95% CI: 1.36--15.34).

The odds of birth preparedness complication readiness of respondents who had history of still birth were nearly four times higher than those who had no history of still birth.(AOR=4.00, 95% CI: 1.08--14.78).

The odds of birth preparedness complication readiness of respondents who ever heard about the terms birth preparedness and complication readiness were nearly six times higher than those who have never heard about the terms birth preparedness complication readiness (AOR=5.70, 95% CI: 1.08, 30.14).

The odds of birth preparedness and complication readiness of respondents who knew about components of BPCR were nearly eight times higher than those who didn't know about components of BPCR (AOR=8.02, 95% CI: 2.94, 21.87).

The odds of birth preparedness complication readiness of respondents who knew about danger signs during pregnancy were nearly three times higher than those who didn't know about danger signs during pregnancy (AOR=2.64, 95 % CI: 1.11, 6.30).

The odds of birth preparedness and complication readiness of respondents who knew about danger signs during labor and delivery were nearly four times higher than those who didn't know about danger signs during labor and delivery (AOR=4.22, 95% CI: 1.66, 10.69).

The odds of birth preparedness and complication readiness of respondents who knows about danger signs during postpartum were nearly three times higher than those who do not know about danger signs during postpartum (AOR=3.37, 95% CI: 1.22--9.27).

Table 5: Multivariable analysis of the association between male partner involvement and other covariates with women's birth preparedness complication readiness in Artuma Fursi Woreda, Amhara Region, Ethiopia, 2023

Variables	Categories	Respondents status		COR (95%CI)	AOR (95%CI)
		Controls N (%)	Cases N (%)		
Age of Woman	<20	21 (9.8)	21 (10.9)	1	1
	20-24	48 (22.4)	34 (17.6)	0.71 (0.34-1.50)	0.53 (0.13-2.20)
	25-29	85 (39.7)	63 (32.6)	0.74 (0.37-1.47)	0.18 (0.04-0.71)*
	30-34	46 (21.5)	51 (26.4)	1.11 (0.54-2.29)	1.22 (0.25-6.04)
	>=35	14 (6.5)	24 (12.4)	1.71 (0.70-4.19)	1.03 (0.12-8.58)
Husband's Educational Status	Can't read and write	127 (59.3)	80 (41.5)	1	1
	Read and write	42 (19.6)	29 (15.0)	1.10 (0.63-1.90)	2.78 (0.86-9.05)
	Primary	29 (13.6)	54 (28.0)	2.96 (1.74-5.03)**	3.19 (1.09-9.33)*
	Secondary	9 (4.2)	17 (8.8)	2.99 (1.28-7.05)*	4.66 (1.09-20.01)*
	Collage and above	7 (3.3)	13 (6.7)	2.95 (1.13-7.70)*	3.39 (0.68-16.99)
Number of Wives	1	145 (67.8)	166 (86.0)	2.93 (1.78-4.81)**	4.57 (1.36-15.34)*
	>=2	69 (32.2)	27 (14.0)	1	1
History of Stillbirth	No	201 (93.9)	155 (80.3)	1	1
	Yes	13 (6.1)	38 (19.7)	3.79 (1.95-7.36)**	3.99 (1.08-14.78)*
Gestational Age of the current pregnancy	<=24	146 (68.2)	53 (27.5)	1	1
	>24	68 (31.8)	140 (72.5)	5.67 (3.70-8.70)**	15.64 (5.96-41.00)**
Ever heard about the terms	No	48 (22.4)	4 (2.1)	1	1

BPCR	Yes	166 (77.6)	189 (97.9)	13.66 (4.82-38.70)**	5.69 (1.08-30.14)*
Knowledge of components of BPCR	Not Knowledgeable	185 (86.4)	83 (43.0)	1	1
	Knowledgeable	29 (13.6)	110 (57.0)	8.46 (5.21-13.72)**	8.02 (2.94-21.87)**
knowledge of danger signs during pregnancy	Not Knowledgeable	163 (76.2)	45 (23.3)	1	1
	Knowledgeable	51 (23.8)	148 (76.7)	10.51 (6.65-16.62)**	2.64 (1.11-6.30)*
Knowledge of danger signs during labor and delivery	Not Knowledgeable	165 (77.1)	40 (20.7)	1	1
	Knowledgeable	49 (22.9)	153 (79.3)	12.88 (8.03-20.65)**	4.22 (1.66-10.69)*
Knowledge of danger signs during postpartum	Not involved	192 (89.7)	107 (55.4)	1	1
	Involved	22 (10.3)	86 (44.6)	7.01 (4.15-11.85)**	3.37 (1.22-9.27)*
Male Involvement	Not involved	181 (84.6)	28 (14.5)	1	1
	Involved	33 (15.4)	165 (85.5)	32.32 (18.72-55.80)**	16.71 (7.29-38.26)**
*p-value <0.05, **p-value <0.001					

6. Discussion

This study assessed the association between male partner involvement and women's birth preparedness complication readiness in Artuma Fursi, Northeast Ethiopia. It revealed that birth preparedness complication readiness were found to be higher among women whose male partner involved on birth preparedness complication readiness compared to those women whose male partner has not involved on birth preparedness complication readiness. Age of women, gestational age, number of wives, history of stillbirth, age of woman, husband's educational status, being heard ever about the terms BPCR, knowledge of components of BPCR, danger signs during pregnancy, labor and delivery and during postpartum were significantly associated with women's birth preparedness and complication readiness.

Birth preparedness complication readiness of respondents whose husbands were involved in BPCR was nearly seventeen times higher than those women whose husbands were not involved in BPCR.

This study revealed 165 (85.5%) male partners of the cases and 33 (15.4%) male partners of the controls were involved in women's BPCR while 65.5% of husbands in Addis Ababa and 44.71% of husbands in Tigray respectively were involved in women's birth preparedness and complications readiness (7). A systematic review and meta-analysis study in LMIC shows that the pooled results showed that 42.4%, (range from 6.6% to 86%) of male partners participated in BPCR (4). Male engagement as an intervention improves birth preparation and complication readiness (27).

In our study male partners of 94.8%, 36.3%, 8.8%, 96.9%, 78.2% of the cases and 80.4%, 9.3%, 0.0%, 35.5%, 13.1% of the controls were involved in identifying place of delivery, skilled birth attendant, blood donor, means of transportation and saving money for the current pregnancy. A systematic review and meta-analysis study in LMIC shows that 54% husband saved money for delivery, whereas 44% identified skilled birth attendants. 45.8% of male partners arranged transportation and 57.2% of study participants identified health facility as a place of birth. Only 16.1% of the male partners identified potential blood donors (4).

In this study educational status of male partner was one of the important predictor in enhancing women's birth preparedness complication readiness.

The odds of BPCR of the pregnant women whose male partners attend primary and secondary education were nearly three and five times higher than those whose husband cannot read and write respectively.

However in study of Debre Birhan husbands who attended tertiary education were more likely to be involved in BPCR than those who can't read and write (32). The possible justification for this disparity might be attributed to differences in socio-demography of the study areas especially in terms of education attainments.

Respondents who were in the third trimester of pregnancy were nearly sixteen times higher than those in second trimester of pregnancy.

However in study of northwest Ethiopia mothers who were in the third trimester of pregnancy were nearly eight times higher than those in second trimester of pregnancy (24). The possible justification for this difference might be due to differences in sample size and methods of assessment.

Respondents whose male partner has only one wife were nearly 5 times more likely to birth preparedness complication readiness than those whose male partner has more than one official wife.

This may be due to the fact that husbands with multiple marriages have less involvement in BPCR which could have internally affects mother's preparation for birth and readiness for any potential complication which may happen.

Respondents who had history of still birth were nearly four times higher than those who had not history of still birth. The finding is concordant with the study findings done in Adigrat, Mizan, south Wollo, Farta and Debrebirhan. This could be the fact that those women who have experienced stillbirth may probably anticipate similar phenomena to their future pregnancies. Hence, these women are expected to seek frequent medical advice than pregnant women who had no previous history of stillbirth which in turn drives them to be prepared for birth and avert any complication (3, 16, 24, 25, 32).

Other factors associated with birth preparedness and complication readiness were being heard about the terms BPCR and respondent's knowledge about component of BPCR.

Respondents who ever heard about the terms birth preparedness complication readiness were nearly six times higher than those who never heard about the terms birth preparedness and complication readiness.

Respondents who know about components of BPCR were nearly eight times higher than those who do not know about components of BPCR.

Study done in Farta district stated that those mothers who were knowledgeable for birth preparedness and complication readiness were nearly nine times more likely to prepare for birth and complication readiness compared to non-knowledgeable mothers (25).

Another important factors associated with birth preparedness and complication readiness were knowledge of danger signs during pregnancy, labor & delivery and postpartum.

Respondents who know about danger signs during pregnancy were nearly three times higher than those who do not knows about danger signs during pregnancy.

Respondents who know about danger signs during labor and delivery were nearly four times higher than those who do not knows about danger signs during labor and delivery.

Respondents who know about danger signs during postpartum were nearly three times higher than those who do not know about danger signs during postpartum.

This is in line with the studies done in Arsi, Farta, Nigeria and Tanzania (8, 15, and 33). Other studies revealed that knowledge of obstetric danger signs during pregnancy and postpartum period was not associated with birth preparedness and complication readiness (3, 22) and knowledge of obstetric danger signs during child birth was not associated with the practice of birth preparedness and complication readiness (21). But it is not supported in the finding of our study. The possible reason for this difference might be socio-demographic variation, variation in the definition of knowledge and the difference methodology.

7. Strength and Limitation of the study

Using health extension workers as data collectors help to maximize the response rate and possibly reduce selection and information biases since they know all the localities of their respective kebeles.

Undergoing community based case-control study with probability sampling method; our sample size was generalizable to the study setting.

The limitation of this study is reporting bias arising from participants wanting to provide socially desirable responses rather than true reflection of the real life situation. In addition, most of the variables were measured based on the subjective response of the women and the ability to remind things may introduce recall bias.

8. Conclusion and Recommendations

8.1. Conclusion

This study identified high birth preparedness and complication readiness among women whose male partner was involved. Other factors associated with women's birth preparedness and complication readiness includes age of women, gestational age of the current pregnancy, history of Stillbirth, number of wives, age of woman, husband's educational status, being aware about the terms BPCR, knowledge of components of BPCR, knowledge of danger signs during pregnancy, knowledge of danger signs during labor & delivery and knowledge of danger signs during postpartum. The occurrences of all identified factors enhance women birth preparedness and complication readiness except being wife of husband with multiple marriages.

8.2. Recommendations

- The health sectors should strengthen efforts of promoting male partner involvement in BPCR to enhance male partner involvement and birth preparedness complication readiness.
- We recommended that there should be progress toward a health education program that enables women and their partner's awareness on male partner involvement and birth preparedness complication readiness.
- The health sectors should strengthen efforts of promoting BPCR at early gestational age.
- In implementing strategies that enhance male partner involvement and women's BPCR we have to focus on males with multiple marriages and their pregnant wife.
- Promote male partner involvement on pregnant women's BPCR
- Increase accessibility of education

We recommend similar studies that involves both partners as respondents together to understand better the association and predictors of male partner involvement in BPCR and women's BPCR in specific contexts.

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10. Assurance of Principal Investigator

I the undersigned agree to accept all responsibilities for the scientific and ethical conduct of the research project. I will provide timely progress report to my advisor and seek the necessary advice and approval from my primary advisors in the course of the research. I will communicate timely to my advisors and all stakeholders involved in the study including any source of funding for this research.

Name of the student: Samrawit Ashagre

Signature: _____

Date: _____

Approval of the Primary Advisor

Name of the primary advisor: Melsew Getnet

Signature: _____


Date: _____

Approval of the Co-Advisor

Name of the co-advisor: Simegnew Handebo

Signature: _____

Date: _____

11. ANNEXES

ANNEX 1: Information sheet

Information Sheet and Consent Form Prepared for person who are going to participate in Research Project: Effect of male involvement in enhancing women's birth preparedness and complication readiness in Artuma Fursi Woreda, Amhara, Ethiopia, 2023:

Name of the principal investigator: Samrawit Ashagre

Name of organization – Artuma Fursi Woreda

Name of the sponsor - St. Paul Hospital Millennium Medical College

Introduction-This information sheet is prepared for Artuma Fursi woreda health office for the purpose of making clear about the overall aim of the research, data collection procedures and in order to get permission to conduct the research.

Purpose of the research: The aim of this study is to assess the effect of male involvement in enhancing women's birth preparedness and complication readiness among mothers in selected kebeles found in Artuma Fursi Woreda, Northeast Ethiopia.

Procedure: study participants will be taken from each selected kebeles in Artuma Fursi Woreda. If you are willing to participate in this project, you need to understand and sign the agreement form. Then after, you will be interviewed by the data collector to give your response. You do not need to tell your name to the data collector and all your responses and the results obtained will be kept confidentially by using coding system whereby no one will have access to your response.

Risk: The study uses interviewer administered questionnaire as a data sources and throughout the study procedure name or any other identifying information will not be recorded and all of the information taken from participants will be kept strictly confidential and in a safe place. The information retrieved will only be used for the study purpose. So the study will not have any harm to the study participants, data collectors or the organization.

Benefits: There are no known direct benefits to the study participant. However, the overall impact for the community is great because the effect of male involvement in enhancing women's birth preparedness and complication readiness will be identified this will help to find for solution and take measure by the concerned body.

Confidentiality: Confidentiality agreement will be signed by data collectors to keep the privacy of information because subjects will be extracted using unique identifier. Besides, questionnaire will be locked in cabinet, and secured with pass word after entered into computer. So, this study will not put study participants in risk of breaking their private information.

Person to contact- If you have any questions about this research or about the use of the results or if you want to know additional information about this research you can contact the following individuals:-

Samrawit Ashagre (principal investigator) St. Paul Hospital Millennium Medical College,
Department of Public Health

Phone-+251910559296

Email- samrawitashagre85@gmail.com

- Melsew Getnet (Advisor) St. Paul Hospital Millennium Medical College

Phone-+251920258142

Email: melsewg@gmail.com

- Simegnew Handebo (Advisor) St. Paul Hospital Millennium Medical College

Phone-+251912490659

Email:simegnewh@gmail.com

ANNEX 2: Consent form

Dear participants my name is_____ I am working with Samrawit Ashagre who is doing a research for the partial fulfillment for the requirement of master of general public health at St. Paul Millennium Medical Collage on assessment of the effect of male involvement in women's birth preparedness and complication readiness in Artuma Fursi woreda. You are chosen randomly to give information concerning maternal care. If you have any question concerning your procedure you can contact using the phone number 0910596592. The questionnaire may take 30 minutes and I assure you that any information you gave me will be confidential. Do I have your permission to continue please?

Yes/no.

If yes signature of the interviewer certifying that, the informed consent will be taken verbally from respondents.

I have read this consent form and I understand what is being requested of me as a participant in this study. I freely consent to participate. I have been given satisfactory answers to my questions.

Signature of participant _____ Date _____

Name of Data collector _____ Signature _____ Date _____

Name of Researcher _____ Signature _____ Date _____

ANNEX 3: Question for Identifying Cases and Controls

Women's Birth Preparedness and Complication Readiness Related data			
No	QUESTIONS	ANSWER	REMARK
403	Do you know components of BPCR?	1. Identifying the place of the delivery 2. Identifying the skilled birth attendant 3. Identifying blood donor 4. Identifying means of transportation for an emergency case 5. Saving money 6. I don't know	
501	Which arrangements did you make for the birth of this child? (CIRCLE ALL RESPONSES GIVEN)	1. Identified transport 2. Identified place of delivery 3. Identified skilled provider 4. Identified blood donor 5. Saved Money 6. I made no arrangement	

ANNEX 3: Data collection form

This is a data abstraction form which includes basic variables of socio-demographic status, male involvement related data, birth preparedness and complication readiness related data, obstetric history and reproductive health factors, health service utilization and access related factors, birth preparedness and complication readiness knowledge related factors and health belief model constructs characteristics of participants' information that are important for the assessment of male involvement in women's birth preparedness and complication readiness.

Questionnaire Number.....

Interviewer code: -----

Date: -----/----- /2023.G.C

Household code: -----

Part One: Socio-demographic data			
No	QUESTIONS	ANSWER	REMARK
101	Age of the woman	_____years	
102	Husband's age	_____years	
103	Religion of the woman	1. Orthodox 2. Muslim 3. Protestant 4. Other, specify _____	
104	Place of residency	1. Urban 2. Rural	
105	Ethnicity of the woman	1. Amhara 2. Oromo 3. Other, specify_____	
106	Ethnicity of the husband	1. Amhara 2. Oromo 3. Other, specify_____	
107	Woman's Educational level	1. Can't read and write 2. Can Read and Write 3. Primary	

		4. Secondary 5. Collage and Above	
108	Woman's Employment status	1. Farmer 2. Merchant 3. Housewife 4. Governmental employee 5. Other, specify_____	
109	Husband's educational status	1. Can't read and write 2. Can Read and Write 3. Primary 4. Secondary 5. Collage and Above	
110	Husband's employment status	1. Farmer 2. Merchant 3. Governmental employee 4. Other, specify-----	
111	Family perceived monthly income status	_____ETB	
112	Family size	_____Number	
113	How many wives do your husband has?	_____Number	
114	If yes, what is your order (wife order)	1. First 2. Second 3. Third 4. Fourth	

Part Two: Obstetric History and Reproductive Health Data			
No	QUESTIONS	ANSWERA	REMARK
201	At what gestational age you started attending ANC for your recent pregnancy?	_____Weeks	
202	Where did you given birth to your previous baby?	1. Health facility 2. Home	

		3. It is my first pregnancy	
203	History of Still birth	1. Yes 2. No	
204	History of Abortion	1. Yes 2. No	
205	Have you experienced other complications during the previous pregnancies?	1. Yes 2. No	
206	If yes for Q no. 205 Specify		
207	Number of pregnancy including the current one	_____Number	
208	Gestational Age of the current pregnancy	_____Weeks	
209	How many Children do you have now?	_____Number	
210	Age at First delivery	_____Years	

Part Three: Health service utilization and access related data

No	QUESTIONS	ANSWER	REMARK
301	Have you started ANC visit for the current pregnancy?	1. Yes 2. No	If no skip to Q. 303
302	If yes for Q no. 301. How many ANC visit do you have for the current pregnancy?	_____	
303	How many minutes does it takes you to reach nearest health facility?	_____minutes	
304	Do you think there is a quality care provision in your nearest health facility?	1. Yes 2. No	
305	Who is decision maker for obstetric service seeking to go to health facility?	1. Self 2. Others (Husband/Relatives) 3. Me and Husband jointly	
306	Do you know about the availability of free ambulance transportation service?	1. Yes 2. No	
307	Do you know about the availability of free ANC & delivery service?	1. Yes 2. No	

Part Four: Birth Preparedness and Complication Readiness Knowledge Related data			
No	QUESTIONS	ANSWER	REMARK
401	Have you ever heard about the terms birth preparedness and complication readiness	1. Yes 2. No	If no skip to Q. 403
402	If yes for question no. 401 What was your source of information	1. Radio 2. Television 3. Midwifery 4. Health extension worker	
403	Do you know components of BPCR?	1. Identifying the place of the delivery 2. Identifying the skilled birth attendant 3. Identifying blood donor 4. Identifying means of transportation for an emergency case 5. Saving money 6. I don't know	
404	What are danger signs during pregnancy?	1. Vaginal bleeding 2. Swelling of hand or face 3. Blurring of vision 4. I don't know	
405	What are danger signs during labor and delivery?	1. Severe vaginal bleeding 2. Prolonged labour (>12hours) 3. Convulsion 4. Retained Placenta 5. I don't know	
406	What are danger signs during postpartum period?	1. Severe vaginal bleeding 2. Foul-smelling vaginal discharge 3. High fever 4. I don't know	

Part Five: Women's Birth Preparedness and Complication Readiness Related data

No	QUESTIONS	ANSWER	REMARK
501	Which arrangements did you make for the birth of this child? (CIRCLE ALL RESPONSES GIVEN)	1. Identified transport 2. Identified place of delivery 3. Identified skilled provider 4. Identified blood donor 5. Saved Money 6. I made no arrangement	
502	Have you identified the place of the delivery for the current pregnancy?	1. Yes 2. No	If no skip to Q no. 504
503	Where do you plan to give birth to this baby?	1. Home 2. Health Center 3. Hospital 4. Private Facility 5. Other, specify _____	
504	Have you identified the skilled birth attendant for the current pregnancy?	1. Yes 2. No	
505	Have you identified the blood donor in case of emergency for the current pregnancy?	1. Yes 2. No	If no skip to Q no. 507
506	Who do you expect will donate you blood in case of emergency for the current pregnancy?	1. Husband 2. Other family members 3. Friends/Neighbors 4. Other, specify _____	
507	Have you identified means of transportation in case of emergency for the current pregnancy?	1. Yes 2. No	If no skip to Q no. 509
508	What type of means of transportation do you identified in case of emergency for the current pregnancy?	1. Government Ambulance 2. Traditional Ambulance 3. Private Transport 4. Other, specify _____	

509	Have you saved money for the current pregnancy/delivery?	1. Yes 2. No	If no skip Q no. 601
510	How much money do you saved in case of emergency for the current pregnancy?	_____birr	

Part Six:Male involvement on Birth Preparedness and Complication Readiness Related data

No	QUESTIONS	ANSWER	REMARK
601	Does your husband involved to identify the place of the delivery for the current pregnancy?	1. Yes 2. No	
602	Does your husband involved to identify the skilled birth attendant for the current pregnancy?	1. Yes 2. No	
603	Does your husband involved to identify the blood donor in case of emergency for the current pregnancy?	1. Yes 2. No	
604	Does your husband involved to identify means of transportation in case of emergency for the current pregnancy?	1. Yes 2. No	
605	Does your husband involved to save money for the current pregnancy/delivery?	1. Yes 2. No	

አማርኛ ትርጉም

1. የመረጃ ወረቀት

ይህ የመረጃ ወረቀት የባሎች ተሳትፎ የነፍሰጡር እናቶች የወሊድ እና ተያያዥ አደጋዎች ቅድመ ዝግጁነት መጨመር ላይ ያለው ተጽኖ በአርጡማ ፋርሲ ወረዳ በአማራ ክልል ፣ በኢትዮጵያ ውስጥ ለሚሰራው ጥናት ላይ ለሚሳተፉ ግለሰቦች ነው።

የዋና መርማሪው ስም፡ - ሳምራዊት አሻግሬ

የወረዳው ስም - አርጡማ ፋርሲ ወረዳ

የስፖንሰር ሰጪው ስም - የቅዱስ ጳውሎስ ሚሊኒዬም ህክምና ኮሌጅ

መግቢያ- ይህ የመረጃ ወረቀት ለአርጡማ ፋርሲ ወረዳ ጤና ጽ/ቤት ስለጠቅላላው የምርምር ስራው አላማዎች፣ የመረጃ አሰባሰብ ሂደቶች እና ምርምር ለማካሄድ ፈቃድ ለማግኘት ተዘጋጅቷል።

የጥናቱ ዓላማ- የዚህ ጥናት ዓላማ በአርጡማ ፋርሲ ወረዳ ውስጥ የባሎች ተሳትፎ የነፍሰጡር እናቶች የወሊድ እና ተያያዥ አደጋዎች ቅድመ ዝግጁነት መጨመር ላይ ያለውን ተጽኖ ለማወቅ ነው።

የስራው ሂደት- የጥናት ተሳታፊዎች በአርጡማ ፋርሲ ወረዳ ውስጥ ከተመረጡ እያንዳንዱ ቀበሌዎች ይወሰዳሉ።

ስጋት- ጥናቱ የሚያጠቃልለው በቃለ መጠይቅ የሚመራውን መጠይቅ እንደ የመረጃ ምንጮች ይጠቀማል። በጥናቱ ሂደት ስም ወይም ሌላ ማንነትን የሚገልጽ መረጃ አይመዘግብም። ከተሳታፊዎች የተወሰዱት መረጃዎች በሙሉ በምስጢር እና ደህንነታቸው በተጠበቀ ቦታ ይቀመጣሉ። የተወሰደው መረጃ ለጥናቱ ዓላማ ብቻ ይውላል። ስለዚህ ጥናቱ ለጥናቱ ተሳታፊዎች ፣ የመረጃ አሰባሰቢዎች ወይም ለተቋሙ ምንም ዓይነት ጉዳት የለውም።

ጥቅሞች- ለጥናቱ ተሳታፊ ምንም የታወቀ ቀጥተኛ ጥቅሞች የሉም ነገር ግን የጥናቱ ተሳታፊ ነፍሰጡር እናት ስለ ወሊድ እና ተያያዥ አደጋዎች ቅድመ ዝግጁነት ግንዛቤዋ እንዲጨምር ያደርጋታል። ሆኖም የባሎች ተሳትፎ የነፍሰጡር እናቶች የወሊድ እና ተያያዥ አደጋዎች ቅድመ ዝግጁነት መጨመር ላይ ያለው ተጽኖ መጠናቱ የወንዶችን ተሳትፎ ከማጠናከር አንጻርና የሚመለከታቸው አካላት መፍትሔው ላይ እንዲሰሩ ስለሚረዳ ለህብረተሰቡ ጠቀሜታ ይኖረዋል።

ምስጢራዊነት የመረጃዎች ግላዊነትን ለመጠበቅ የመረጃ ሰብሳቢዎች ሚስጥር ለመጠበቅ በቅድሚያ ስምምነት ይፈርማሉ። በተጨማሪም ፣ መጠይቆቹ ወደ ኮምፒውተር ከገባ በኋላ የመጠይቅ ወረቀቶች በካቢኔት ውስጥ ተቆልፎ ይቀመጣል። መረጃዎቹም በኮምፒውተር የይለፍ ቃል ተጠብቀው ይቀመጣሉ። ስለዚህ ይህ ጥናት የጥናቱን ተሳታፊዎች የግል መረጃዎች አደጋ ላይ አይጥልም።

ለተጨማሪ መረጃ - ስለዚህ ምርምር ወይም ስለ ውጤቶቹ አጠቃቀም ማንኛቸውም ጥያቄዎች ካሉዎት ወይም ስለዚህ ምርምር ተጨማሪ መረጃ ማወቅ ከፈለጉ እርስዎ የሚከተሉትን ግለሰቦች ማነጋገር ይችላል።

ሳምራዊት አሻግሬ (ዋና መርማሪ) የቅዱስ ጳውሎስ ሚሊኒዬም ህክምና ኮሌጅ የህብረተሰብ ጤና ት/ት ክፍል

ስልክ ቁጥር-+251910596592

ኢሜል- samrawitashagre85@gmail.com

መልሰው ጌትነት (አማካሪ) የቅዱስ ጳውሎስ ሚሊኒዬም ህክምና ኮሌጅ የህብረተሰብ ጤና ት/ት ክፍል

ስልክ ቁጥር-+251920258142

ኢሜል: melsewg@gmail.com

• ስመኸው ሃንደቦ (አማካሪ) የቅዱስ ጳውሎስ ሚሊኒዬም ህክምና ኮሌጅ የህብረተሰብ ጤና ት/ት ክፍል

ስልክ ቁጥር-+251912490659

ኢሜል:simegnewh@gmail.com

የስምምነት ቅጽ

የተከበሩ ተሳታፊዎች የእኔ ስም _____ ነው። በቅዱስ ጳውሎስ ሚሊኒዬም ህክምና ኮሌጅ የህብረተሰብ ጤና ት/ት ክፍል ለሁለተኛ ድግሪ ትምህርት ማጠናቀቂያ የሚሆን ጥናት ከሚያደርጉት ሳምራዊት አሻግራ ጋር እስራለሁ። በአርጡማ ፋርሲ ወረዳ የነፍሰጡር እናቶችን በተመለከተ መረጃ ለመስጠት በስርዓት ተመርጠዋል። የአሠራር ሂደቱን በተመለከተ ማንኛውም ጥያቄ ካለዎት በስልክ ቁጥር 0910596592 በመጠቀም ማነጋገር ይችላሉ። እባክዎን ለመቀጠል የእርስዎን ፈቃድ አለኝ?

አዎ/አይ

በቃለ መጠይቁ ቃለ መጠይቅ አዎ ከሆነ ፣ መረጃው የተሰጠው ፈቃድ ከተሳታፊዎቹ በቃል ይወሰዳል።

ይህንን የስምምነት ቅጽ አንብቤያለሁ እናም በዚህ ጥናት ውስጥ እንደ ተሳታፊ እኔ ከእኔ ምን እንደሚፈለግ ተረድቻለሁ። ለመሳተፍ በነፃነት እስማማለሁ ። ለጥያቄዎቹ አጥጋቢ መልሶች ተሰጥቶኛል።

የተሳታፊው ፊርማ _____ ቀን _____

የመረጃ አሰባሳቢው ስም _____ ፊርማ _____ ቀን _____

የተመራማሪው ስም _____ ፊርማ _____ ቀን _____

ANNEX 3:ኬዞችንና ኮንትራሎችን የመለያ መጠይቅ ቅጽ

ኬዞችንና ኮንትራሎችን የመለያ መጠይቅ ቅጽ			
ተ.ቁ	ጥያቄዎች	መልሶች	ምርመራ
403	የነፍሰጡር እናት የወሊድ እና ተያያዥ አደጋዎች ቅድመ ዝግጁነት ተግባራት ምንድናቸው	1. የመውለጃ ቦታን መለየት 2. አዋላጅ ባለሙያን መለየት 3. የመጓጓዣ ዘዴን መለየት 4. የደም ለጋሽን መለየት 5. ገንዘብ መቆጠብ/ማስቀመጥ 6. አላውቅም	
501	ለአሁኑ እርግዝና ምን አይነት ቅድመ ዝግጅቶች አድርገዋል (ሁሉንም የተሰጡ ምላሾች አክብብ)	1. የመውለጃ ቦታን መለየት 2. አዋላጅ ባለሙያን መለየት 3. የመጓጓዣ ዘዴን መለየት 4. የደም ለጋሽን መለየት 5. ገንዘብ መቆጠብ/ማስቀመጥ 6. ምንም ቅድመ ዝግጅት አላደረግኩም	

የመረጃ መሰብሰቢያ ቅጽ

ይህ ቅጽ የባሎች ተሳትፎ የነፍሰጡር እናቶች የወሊድ እና ተያያዥ አደጋዎች ቅድመ ዝግጁነት መጨመር ላይ ያለው ተጽኖ ለማጥናት የሚረዳ የጥናት ተሳታፊዎችን የማህበራዊ እና የስነ ሕዝብ አወቃቀር ሁኔታ መሰረታዊ ተለዋዋጮችን፣ የባሎች ተሳትፎ ሁኔታ መረጃዎችን፣ የነፍሰጡር እናቶች የወሊድ እና ተያያዥ አደጋዎች ቅድመ ዝግጁነት ሁኔታ መረጃዎችን፣ የወሊድና የስነ ተዋልዶ ያለፈ ታሪክን የሚመለከቱ መረጃዎችን፣ የጤና አገልግሎት አጠቃቀምና ተደራሽነት የሚመለከቱ መረጃዎችን፣ የነፍሰጡር እናቶች የወሊድ እና ተያያዥ አደጋዎች ቅድመ ዝግጁነት እውቀት ሁኔታን የተመለከቱ መረጃዎች እና ተጓዳኝ ጉዳዮችን የሚያካትት ረቂቅ ቅጽ ነው።

የቃለመጠይቅ ኮድ: -----

ቀን: / /

የቤት ኮድ: -----

ክፍል አንድ: የማህበራዊ እና የስነ ሕዝብ አወቃቀር መረጃ			
ተ.ቁ	ጥያቄዎች	መልስ	ምርመራ
101	እድሜሽ ስንት ነው	_____ ዓመት	
102	የባለቤትሽ እድሜ ስንት ነው	_____ ዓመት	
103	ሃይማኖትሽ ምንድነው	1. ኦርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ሌላ፣ ያብራሩ _____	
104	የመኖሪያ ስፍራሽ የት ነው	1. ከተማ 2. ገጠር	
105	ብሄርሽ ምንድነው	1. አማራ 2. አሮሞ 3. ሌላ፣ ያብራሩ _____	
106	የባልሽ ብሄር ምንድነው	1. አማራ 2. አሮሞ 3. ሌላ፣ ያብራሩ _____	

107	የትምህርት ደረጃሽ ምን ያክል ነው	1. ማንበብና መጻፍ አልችልም 2. ማንበብና መጻፍ እችላለሁ 3. አንደኛ ደረጃ 4. ሁለተኛ ደረጃ 5. ኮሌጅ እና ከዚያ በላይ	
108	ስራሽ ምንድነው	1. አርሶ አደር 2. ነጋዴ 3. የቤት እመቤት 4. የመንግስት ሰራተኛ 5. ሌላ፣ ያብራሩ _____	
109	የባል የትምህርት ደረጃ	1. ማንበብና መጻፍ አልችልም 2. ማንበብና መጻፍ እችላለሁ 3. አንደኛ ደረጃ 4. ሁለተኛ ደረጃ 5. ኮሌጅ እና ከዚያ በላይ	
110	የባል የስራ ደረጃ	1. አርሶ አደር 2. ነጋዴ 3. የመንግስት ሰራተኛ 4. ሌላ፣ ያብራሩ _____	
111	የቤተሰቡ የወር ገቢ ምን ያክል ይሆናል ተብሎ ይገመታል	_____ የኢትዮጵያ ብር	
112	አጠቃላይ የቤተሰቡ ብዛት ስንት ነው	_____ በቁጥር	
113	ባለቤትሽ ባጠቃላይ ስንት ሚስቶች አሉት	_____ በቁጥር	
114	ባሎት ሌላ ሚስት ካላቸው እርሶ ስንተኛ ሚስት ነዎት	1. አንደኛ 2. ሁለተኛ 3. ሶስተኛ 4. አራተኛ	

ክፍል ሁለት:የወሊድ ታሪክና የስነ ተዋልዶ ጤና መረጃ			
ተ.ቁ	ጥያቄዎች	መልስ	ምርመራ
201	የአሁኑን እርግዝና ካረዝቱ በስንተኛው ሳምንት ነው የቅድመ ወሊድ ክትትል የጀመሩት	_____በሳምንት	
202	ከዚህኛው በፊት የወለዱትን ልጅ የት ነበር የወለዱት	1. በጤና ተቋም 2. እቤት ውስጥ 3. የመጀመሪያ እርግዝናዬ ነው	
203	ከዝህ በፊት ሞቶ የተወለደ ልጅ አጋጥሞት ያውቃል	1. አዎ 2. አይ	
204	ከዝህ በፊት ውርጃ አጋጥሞት ያውቃል	1. አዎ 2. አይ	
205	ከዚህ በፊት በነበረዎት እርግዝና ሌላ ከእርግዝና ጋር የተያያዘ የተወሳሰበ ችግር አጋጠመዎት ያውቃል	1. አዎ 2. አይ	
206	ለጥያቄ ቁጥር 205 መልሶ አዎ ከሆነ ያጋጠሞትን ችግር ይዘርዝሩ		
207	የአሁኑን ጨምሮ ስንተኛ እርግዝናዎት ነው	_____በቁጥር	
208	አሁን ላይ ካረዝቱ ስንት ጊዜ ሆኖት	_____በሳምንት	
209	አሁን ላይ ስንት ልጆች አሉአቼ	_____በቁጥር	
210	የመጀመሪያ ልጅ ሲወልዱ እድሜዎ ስንት ነው	_____በአመት	

ክፍል ሶስት:የጤና አገልግሎት አጠቃቀምና ተደራሽነትን የተመለከቱ መረጃዎች			
ተ.ቁ	ጥያቄዎች	መልስ	ምርመራ
301	ለአሁኑ እርግዝና የቅድመ ወሊድ ክትትል ጀምረዋል (መልሶ አይ ከሆነ ወደ ጥያቄ ቁ. 303 ይለፉ)	1. አዎ 2. አይ	
302	ለአሁኑ እርግዝና ስንት የቅድመ ወሊድ ክትትል አድርገዋል	_____በቁጥር	
303	በአቅራቢያዎ ያለ የጤና ተቋም ለመድረስ ምን ያክል ጊዜ ይፈጃል	_____በደቂቃ	

304	በአቅራቢያዎ ባለ ጤና ተቋም ጥራት ያለው አገልግሎት ይሰጣል ብለው ያምናሉ	1. አዎ 2. አይ	
305	ከወሊድ ጋር የተያያዘ የጤና አገልግሎት ለማግኘት ወደ ጤና ተቋም ስለመሄድ ማን ነው ውሳኔ ሚዎስነው	1. እኔ 2. ቤለቤቴ 3. እኔና ባለቤቴ በጋራ	
306	ለወላድ እናቶች ነጻ የአምቡላንስ ትራንስፖርት አገልግሎት እንደሚሰጥ ያውቃሉ	1. አዎ 2. አይ	
307	በመንግስት የጤና ተቋማት ነጻ የቅድመ ወሊድና የወሊድ አገልግሎት እንደሚሰጥ ያውቃሉ	1. አዎ 2. አይ	

ክፍል አራት: የነፍሰጡር እናቶች የወሊድና ተያያዥ አደጋዎች ቅድመ ዝግጁነት እውቀትን የተመለከቱ መረጃዎች			
ተ.ቁ	ጥያቄዎች	መልስ	ምርመራ
401	ከዚህ ቀደም የነፍሰጡር እናት የወሊድ እና ተያያዥ አደጋዎች ቅድመ ዝግጁነት ሲባል ስምተው ያውቃሉ (መልሶ አይ ከሆነ ወደ ጥያቄ ቁ. 403 ይለፉ)	1. አዎ 2. አይ	
402	ለጥያቄ ቁጥር 401 መልሶ አዎ ከሆነ የመረጃ ምንጮ ምን ነበር	1. ሬዲዮ 2. ቴሌቪዥን 3. የአዋላጅ ጤና ባለሙያ 4. የጤና ኤክስቴንሽን ሰራተኛ	
403	የነፍሰጡር እናት የወሊድ እና ተያያዥ አደጋዎች ቅድመ ዝግጁነት ተግባራት ምንድናቸው	1. የመውለጃ ቦታን መለየት 2. አዋላጅ ባለሙያን መለየት 3. የመጓጓዣ ዘዴን መለየት 4. የደም ለጋሽን መለየት 5. ገንዘብ መቆጠብ/ማስቀመጥ	

		6. አላውቅም	
404	በእርግዝና ወቅት ሊከሰቱ የሚችሉ የአደጋ ምልክቶች ምንድናቸው	1. የፊትና የእጅ ማበጥ 2. የእይታ መደብዘዝ 3. አላውቅም	
405	በምጥና በወሊድ ወቅት ሊከሰቱ የሚችሉ የአደጋ ምልክቶች ምንድናቸው	1. ከፍተኛ የማህጸን ደም መፍሰስ 2. የምጥ መራዘም (>12hours) 3. ማንዘፍዘፍ 4. የእንግዲ ልጅ መቅረት 5. አላውቅም	
406	በድህረ ወሊድ ወቅት ሊከሰቱ የሚችሉ የአደጋ ምልክቶች ምንድናቸው	1. ከፍተኛ የማህጸን ደም መፍሰስ 2. መጥፎ ሽታ ያለው የመሃጸን ፈሳሽ 3. ከፍተኛ ትኩሳት 4. አላውቅም	

ክፍል አምስት፡የነፍሰጡር እናቶች የወሊድ እና ተያያዥ አደጋዎች ቅድመ ዝግጅት መረጃ			
ተ.ቁ	ጥያቄዎች	መልሶች	ምርመራ
501	ለአሁኑ እርግዝና ምን አይነት ቅድመ ዝግጅቶች አድርገዋል (ሁሉንም የተሰጡ ምላሾች አክብብ)	1. የመውለጃ ቦታን መለየት 2. አዋላጅ ባለሙያን መለየት 3. የመጓጓዣ ዘዴን መለየት 4. የደም ለጋሽን መለየት 5. ገንዘብ መቆጠብ/ማስቀመጥ 6. ምንም ቅድመ ዝግጅት አላደረግኩም	
502	ለአሁኑ እርግዝና የመውለጃ ቦታ ለይተዋል (መልሶ አይ ከሆነ ወደ ጥያቄ ቁ. 504 ይለፉ)	1. አዎ 2. አይ	
503	የአሁኑን እርግዝና የት ለመውለድ ወስነዋል	1. እቤት 2. ጤና ጣቢያ 3. ሆስፒታል 4. የግል ጤና ተቋም	

		5. ሌላ፣ ያብራሩ _____	
504	የአሁኑን እርግዝና የሚያዋልዶትንት የጤና ባለሙያ ለይተዋለ?	1. አይ 2. አይ	
505	በአሁኑ እርግዝና ድንገተኛ አደጋ ቢያጋጥም ደም ሊለግስዎ የሚችል ሰው ለየተዋል (መልሶ አይ ከሆነ ወደ ጥያቄ ቁ. 507 ይለፉ)	1. አይ 2. አይ	
506	በአሁኑ እርግዝና ድንገተኛ አደጋ ቢያጋጥም ማን ደም ሊለግስዎ ይችላል	1. ባል 2. ሌላ የቤተሰብ አባል 3. ጓደኛ/ጎረቤት 4. ሌላ፣ ያብራሩ _____	
507	በአሁኑ እርግዝና ድንገተኛ አደጋ ቢያጋጥምዎ የመጓጓዣ ዘዴ ለይተዋል? (መልሶ አይ ከሆነ ወደ ጥያቄ ቁ. 509 ይለፉ)	1. አይ 2. አይ	
508	በአሁኑ እርግዝና ድንገተኛ አደጋ ቢያጋጥምዎ ምን አይነት የመጓጓዣ ዘዴ ለይተዋል	1. አምቡላንስ ተሽከርካሪ 2. ባህላዊ አምቡላንስ 3. የግል ትራንስፖርት 4. ሌላ፣ ያብራሩ _____	
509	በአሁኑ እርግዝና ለወሊድ የሚሆን ገንዘብ ቆጠበዋል (መልሶ አይ ከሆነ ወደ ጥያቄ ቁ. 601 ይለፉ)	1. አይ 2. አይ	
510	በአሁኑ እርግዝና ለወሊድ የሚሆን ምን ያህል ገንዘብ ቆጠበዋል	_____ ብር	

ክፍል ስድስት፡በነፍሰጡር እናቶች የወሊድና ተያያዥ አደጋዎች ቅድመ ዝግጁነት ላይ የባሎች ተሳትፎን የተመለከቱ መረጃዎች			
ተ.ቁ	ጥያቄዎች	መልስ	ምርመራ
601	በአሁኑ እርግዝናሽ ባለቤትሽ የመውለጃ ቦታሽን ለመየት አግዞሻል	1. አዎ 2. አይ	
602	በአሁኑ እርግዝናሽ ባለቤትሽ አዋላጅ ባለሙያን ለመየት አግዞሻል	1. አዎ 2. አይ	
603	በአሁኑ እርግዝናሽ ባለቤትሽ የደም ለጋሽን ለመየት አግዞሻል	1. አዎ 2. አይ	
604	በአሁኑ እርግዝናሽ ባለቤትሽ የመጓጓዣ ዘዴን ለመየት አግዞሻል	1. አዎ 2. አይ	
605	በአሁኑ እርግዝናሽ ባለቤትሽ ለመውለጃ የሚያስፈልግ ገንዘብ ለመቆጠብ አግዞሻል	1. አዎ 2. አይ	

Hiika Afaan Oromoo

Waraqaan raga fi gucni waliigaltee kun namoota bu'aa hirmaannaan abbaan manaa qophii hadholiin ulfaa dahumsaafi ittisa balaa dahumsaan walqabatee dhufuuf taasisanif qabu irratti qo'annoo aanaa Arxummaa Fursii, naannoo Amaaraa, Etoophiyaa keessaatti taasifamu irratti hirmaataniif kan qophaahedha.

Maqaa qo'ataa dursaa- Saamraawit Ashaagree

Maqaa aanaa qorannoon keessatti gaggeeffamu- Aanaa Arxummaa Fursii

Dhaabbata ispoonsara laate- Hospitaala Qiddus Phaawulositti Koolleejii Fayyaa Miliniyeemii

Seensa- Waraqaan raga kun kan qophaahe waajjira fayyaa aanaa Arxummaa Fursiitiif kaayyoo waliigalaa qo'annichaa, adeemsa waliigalaa raga sassaabuufi eeyyama argachuuf qophaaheedha..

Kaayyoo Qoa'annichaa- Kaayyoon qo'annoo kanaa dhiibbaa hirmaannaan abbaa manaa qophii hadholiin ulfaa dahumsaafi ittisa balaa dahumsaan walqabatee dhufuuf taasisan fooyyeessuuf qabu beekuufi

Adeemsa Qo'annichaa- Hirmaattonni qo'annichaa gandoota aanaa Arxummaa Fursii irraa filaman hunda keessaa fudhatamu

Yaaddoo - Qo'aannoon adeemsifamu ragaalee bifa gaaffifi deebitin funnaannaman akka ragaatti fayyadamuudhaan taha. Adeemsa qo'annoo keessatti maqaaniifi ragaaleen eenyummaa adda baasuf fayyadan hin galmaahan. Ragaaleen hirmaattota irraa funaannaman guutuun bakka iccitiin isaanii bifa amansiisaa taheen itti eeggamuu dandahutti ol kaahamu. Ragaan funaannames hojii qo'annoo kanaaf qofa oola. Kanaafuu qo'annoon kun hirmaattotaaf, qaamota raga sassaabaniif akkasumas aanichaaf miidhhaa homtuu hin qabu.

Faayidaa- Hirmaattota qo'annootif faayidaa kallattii adda bahe hin qabu. Garuu haati ulfaa qo'annoo kana irratti hirmaattu hubannoon ishii dhimma qophii dursaa dahumsaafi rakkoolee isaan wal qabatanii dhufan irratti qabdu ni fooy'aa. Haa tahuu malee qo'annoon kun taasifamuun hirmaannaa abbaa manaa dabaluufi gahe qabeessotaaf raga gahaa kennuudhaan tajaajilli hadholii ulfaa akka fooya'u taasiisuu irratti hawaasaaf bu'aa qaba.

Icciiitii- Icciiitii hirmaattotaa eegudhaaf dursa qaamoleen raga funaanan waliigaltee ni mallaatteessuu. Dabalataanis ragaan funaanname erga gara kompiitaraattii galfameen booda gucni guutame hundi sanduuqa keessatti furtuudhaan cufamee ol kaahama ragichis kompitara keessatti paaswordiidhaan hidhamee ol kaahama. Kanaafuu qo'annoon kun ragaa hirmaattotaa balaa irra hin buusu

Ragaa Dabalataatiif- Waa'ee qorannoo kanaa, waa'ee itti fayyadama bu'aa qorannoo kanaatiif yookiin qorannoo kanaan wal qabatee raga dabalataa yoo barbaaddan nammoota asii gaditti tarreeffaman dubbisaa.

Saamraawit Ashaagree (Qo'attuu Duree) Kolleejjii fayyaa Miliniiyeemii Qiddus Phaawulositti kutaa barnootaa fayyaa hawaasaa

Lakkoofsa Bilbilaa-+251910596592

Iimelii- samrawitashagre85@gmail.com

Mallisaw Geetinnat (Gorsaa) Kolleejjii fayyaa Miliniiyeemii Qiddus Phaawulositti kutaa barnootaa fayyaa hawaasaa

Lakkoofsa Bilbilaa-+251920258142

Iimelii- melsewg@gmail.com

Simmanyaw Handeeboo (Gorsaa) Kolleejjii fayyaa Miliniiyeemii Qiddus Phaawulositti kutaa barnootaa fayyaa hawaasaa

Lakkoofsa Bilbilaa-+251912490659

Iimelii: simegnewh@gmail.com

Guca Walii Galtee

Kabajamoo hirmaattota qo'annoo kanaa ani maqaan kiyya ----- jedhama. Kolleejjii fayyaa Miliniyeemii Qiddus Phaawulositti kutaa barnootaa fayyaa hawaasaatti qo'annoo xummura barnoota digrii lammaffaa taasisaa kan jiran aadde Saamraawit Ashaagree wajjiin hojjadha. Isinis aanaa Arxummaa Fursiitti waa'ee haadholii ulfaa raga akka kennitan filatamtanii jirtu. Adeemsa qo'annoo kanaan walqabatee gaaffii kamiyyuu yoo qabaattan lakkoofsa bilbilaa 0910596592 irratti bilbiltanii gaafachuu dandeessuu. Gaaffiwwan kiyya itti fufudhaaf naaf eeyyamtanii jirtuu?

Eeyyeen/Miti

Gaaffilee gaafataman deebisuudhaaf kan eeyyaman yoo tahe eeyyamamaa tahuu isaaniitif eeyyamni isaanii afaaniin irraa fudhatama.

Guca waliigaltee kanaa dubbiiseen jira. Akkasumas qo'annoo kana keessatti akka qaama hirmaatu tokkotti wanta narraa eeggamu hunda hubadheen jira. Qo'annicharatti bilisummaadhaan hirmaachuudhaaf hayyamamaadha. Gaaffiwwan kiyyaaf deebiin gahaan naaf laatamee jira.

Mallattoo nama hirmaatee _____ guyyaa _____

Maqaa nama raga sassaabuu _____ mallattoo _____ guyyaa _____

Maqaa nama qo'annoo taasisuu _____ mallattoo _____ guyyaa _____

ANNEX 3: Gaaffii hirmaattotni (Case & Control) itti adda baafaman

Gaaffii hirmaattotni (Case & Control) itti adda baafaman			
Lakk	GAAFFIILEE	DEEBII	QORANNOO
403	Qophiin dahumsaafi ittisa balaa dahumsaan wal qabatee dhufuuf taasifamu maal fa'aa of keessaa qaba	1. Bakka itti dahan adda baafachuu 2. Nama nu deesisu adda baafachuu 3. Yoo balaan tasaa nu qunname nama dhiiga nuuf arjoomu adda baafachuu 4. Konkolaataa dahumsaaf ittiin deemnu adda baafachuu 5. Qarshii dahumsaaf nuuf tahu qusachuu 6. Hin beeku	
501	Ulfa ammaa kana dahuudhaaf qophii maalii taasiftee jirta	1. Bakka itti dahan adda baafachuu 2. Nama nu deesisu adda baafachuu 3. Yoo balaan tasaa nu qunname nama dhiiga nuuf arjoomu adda baafachuu 4. Konkolaataa dahumsaaf ittiin deemnu adda baafachuu 5. Qarshii dahumsaaf nuuf tahu qusachuu 6. Qophii kamuu hin taasifne	

Guca Ragaan Itti Sassaabbamu

Gucni armaan gadii kun guca ragaaleen qo'annoo bu'aa hirmaannaan abbaan manaa qophii hadholiin ulfaa dahumsaafi ittisa balaa dahumsaan walqabatee dhufuuf taasisanif qabu irratti taasifamuuf barbaachisan dhimmoota hawaasummaafi haala uummataa, hirmaannaa abbaa manaa, qophii hadholiin ulfaa dahumsaafi ittisa balaa dahumsaan walqabatee dhufuuf taasisan, hubannoo hadholii ulfaa, seennaa dahumsaafi fayyaa walhormaataa haadholii ulfaa, ittii fayyadamafi waliingahumsa tajaajila fayyaa haadholii irratti guca xiyyeeffatuudha.

Koodii Guca Raga: _____

Guyyaa: _____/_____

Lakkoofsa Manaa: _____

Kutaa Tokko: Ragaa Hawaasummaafi Haala Jireenya Uummataa			
Lakk.	GAAFFIILEE	DEEBII	QORANNOO
101	Umuriin kee meeqa	_____ baraan	
102	Umuriin abbaa manaa kee meeqa	_____ baraan	
103	Amantaan kee maali	1. Ortodoksii 2. Musliima 3. Piroteestaantii 4. Kan biraa, ibsi _____	
104	Bakki jireenyaa keessan eessa	1. Magaalaa 2. Baadiyyaa	
105	Sabni kee maali	1. Amaara 2. Oromoo 3. Kan biraa, ibsi _____	
106	Sabni abbaa manaa kee maali	1. Amaara 2. Oromoo 3. Kan biraa, ibsi _____	

107	Sadarkaan barnootaa kee hangami	1. Dubbisuufi barreessuu hin danda’u 2. Dubbisuufi barreessuu ni danda’a 3. Sadarkaa jalqabaa 4. Sadarkaa lammaffaa 5. Kolleejjiifi isaa ol	
108	Hojiin kee maali	1. Qonnaan bulaa 2. Daldalaa 3. Haadha warraa 4. Hojjataa mootummaa 5. Kan biraa, ibsi _____	
109	Sadarkaan barnootaa abbaa manaa kee hangami	1. Dubbisuufi barreessuu hin danda’u 2. Dubbisuufi barreessuu ni danda’a 3. Sadarkaa jalqabaa 4. Sadarkaa lammaffaa 5. Kolleejjiifi isaa ol	
110	Hojiin abbaa manaa kee maali	1. Qonnaan bulaa 2. Daldalaa 3. Haadha warraa 4. Hojjataa mootummaa 5. Kan biraa, ibsi _____	
111	Galiin maatii keessanii ji’aan hammam taha	_____Qarshii	
112	Baay’inni miseensota maatii keessan meeqaa	_____Lakkoofsaan	
113	Abbaan manaa keessan haadha warraa meeqa qaba?	_____Lakkoofsaan	
114	Abbaan manaa keessan haadha warraa biraa qaba taanaan isin haadha manaa meeqaffaadha?	1. Tokkoffaa 2. Lammaffaa 3. Sadaffaa 4. Arfaaffaa	

Kutaa Lama: Seenaa Ulfaa, Dahumsaa fi Fayyaa Walhormaataa			
Lakk.	GAAFFIILEE	DEEBII	QORANNOO
201	Ulfa kanaaf ji'a meeqaffaatti hordoffii dahumsaan duraa jalqabdan	_____Torbaniin	
202	Dahumsa isa kanaan duraa eessatti deessan	1. Buufata Fayyaatti 2. Manumatti 3. Ulfi koo kan yeroo jalqabaati	
203	Amma dura Rakkoon daa'ima du'ee dhalachuu isin muudatee beekaa?	1. Eeyyen 2. Miti	
204	Amma dura ulfi isin gufatee beekaa	1. Eeyyeen 2. Miti	
205	Amma dura rakkoon walxaxaan biraa ulfaan walqabate isin muudatee beekaa?	1. Eeyyen 2. Miti	
206	Gaaffii lakk. 204 eeyyen tahe rakkoo isin muudate bal'inaan ibsaa		
207	Ulfa isa ammaa dabalatee yeroo meeqa ulfooftanii beektu	_____Lakkoofsaan	
208	Ulfi keessan ammaa torban meeqa tahee jira	_____Torbaniin	
209	Yeroo ammaa kanatti ijoollee meeqa qabdu	_____Lakkoofsa	
210	Dahumsa jalqabaa keessanitti umuriin keessan meeqa ture	_____Bara	

Kutaa Sadi: Itti Fayyadamafii Waliingahinsa Tajaajila Fayyaa			
Lakk.	GAAFFIILEE	DEEBII	QORANNOO
301	Ulfa kanaaf tajaajila hordoffii dahumsaan duraa jalqabdani (Deebin keessan Miti yoo ta'e gara gaaffii lakk. 303 darbaa)	1. Eeyyeen 2. Miti	

302	Ulfa kanaaf hanga ammaa tajaajila hordoffii dahumsaan duraa meeqa taasiftan	_____Lakkoofsaan	
303	Dhaabbata fayyaa dhiheenya keessanitti argamu bira gahuuf daqiiqaa meeqa isinitti fudhata	_____Daqiiqaadhan	
304	Dhaabbata fayyaa dhiheenya keessanitti argamu keessatti tajaajilli sadarkaa isaa eeggate ni kennama jettanii amantuu	1. Eeyyen 2. Miti	
305	Dhaabbata fayyaa dhaqanii tajaajila ulfaafi dahumsaan walqabate argachuuf murtee kan murteessu eenyu	1. Anuma 2. Abbaa manaa kiyya 3. Anaafii abbaa manaa kiyya	
306	Tajaajilli ambulaansii bilisaa hadholii ulfaatif akka kennamu beektuu?	1. Eeyyen 2. Miti	
307	Tajaajilli hordoffii dahumsa duraafi dahumsaa ogeessaa fayyaatin bilisaa hadholii ulfaatif akka kennamu beektuu?	1. Eeyyen 2. Miti	

Kutaa Afur: Beekkumsa Haadholii Ulfaa Qophii Dahumsaafi Rakkoolee Dahumsaan Walqabataniif Taasifamu Irratti Qaban

Lakk	GAAFFIILEE	DEEBII	QORANNOO
401	Qophii dahumsaafi ittisa balaa dahumsaan wal qabate” yommuu jedhamu dhageessanii beektuu (Deebin keessan Miti yoo ta’e gara gaaffii lakk. 403 darbaa)	1. Eeyyeen 2. Miti	
402	Gaaffii lakk. 401f deebbin keessan eeyyeen yoo tahe eenyu irraa dhageessan	1. Raadiyoonii 2. Televizhinii 3. Ogeessa deessiftuu 4. Hojjataa ekisteenshinii fayyaa	

403	Qophiin dahumsaafi ittisa balaa dahumsaan wal qabatee dhufuuf taasifamu maal fa'aa of keessaa qaba	1. Bakka itti dahan adda baafachuu 2. Nama nu deesisu adda baafachuu 3. Yoo balaan tasaa nu qunname nama dhiiga nuuf arjoomu adda baafachuu 4. Konkolaataa dahumsaaf ittiin deemnu adda baafachuu 5. Qarshii dahumsaaf nuuf tahu qusachuu 6. Hin beeku	
404	Mallattooleen rakkoo hamaa yeroo ulfaa maal fa'aadha?	1. Dhiiguu gadaamessaa 2. Harkiifi fuulli iitahuu 3. Argaa ijaa diilallaahuu 4. Hin beeku	
405	Mallattooleen rakkoo hamaa yeroo ciniinsuufi dahumsaa maal fa'aadha?	1. Dhiiguu gadaamessaa ool'aanaa 2. Ciniinsuun yeroo dheeraaf turuu (>12hours) 3. Hurguffii Qaamaa 4. Handhuura/Hobbaatiin bahuu diduu 5. Hin beeku	
406	Mallattooleen rakkoo hamaa dahumsaan boodaa maal fa'aadha?	1. Dhiiguu gadaamessaa ool'aanaa 2. Dhanqalaahaa gadaamessaa foolii hamaa qabu 3. Hoo'a qaamaa ol'aanaa 4. Hin beeku	

Kutaa Shan: Qophii Haadholiin Ulfaa Dahumsaafi Rakkoolee Dahumsaan Walqabataniif Taasisan

Lakk.	GAAFFIILEE	DEEBII	QORANNOO
501	Ulfa ammaa kana dahuudhaaf qophii maalii taasiftee jirta	1. Bakka itti dahan adda baafachuu 2. Nama nu deesisu adda baafachuu 3. Yoo balaan tasaa nu qunname nama dhiiga nuuf arjoomu adda baafachuu 4. Konkolaataa dahumsaaf ittiin deemnu adda baafachuu 5. Qarshii dahumsaaf nuuf tahu qusachuu 6. Qophii kamuu hin taasifne	
502	Ulfa isa ammaa kana bakka itti deessu adda baafattee jirtaa (Deebin keessan Miti yoo ta'e gara gaaffii lakk. 504 darbaa)	1. Eeyyeen 2. Miti	
503	Ulfa isa ammaa kana eessaatti dahuuf karoorfattee	1. Manatti 2. Buufata Fayyaa tti 3. Hospitaalatti 4. Dhaabbata fayyaa dhuunfaatti 5. Kan biraa, ibsi _____	
504	Ulfa isa ammaaa kana nama si deessisu adda baafattee jirtaa?	1. Eeyyeen 2. Miti	
505	Ulfa isa ammaa kana irratti rakkoon tasaa yoo si qunname nama dhiiga siiif	1. Eeyyeen 2. Miti	

	arjoomu adda baafattee jirtaa? (Deebin keessan Miti yoo ta'e gara gaaffii lakk. 507 darbaa)		
506	Ulfa isa ammaa kana irratti rakkoon tasaa yoo si qunname eenutu dhiiga siif arjooma?	1. Abbaa warraa 2. Miseensota maatii biroo 3. Ollaa/Hiriyoota 4. Kan biraa, ibsi _____ 5. Hin jiru	
507	Ulfa isa ammaa kana irratti rakkoon tasaa yoo si qunname konkolaataa ittiin deemtu adda baafattee jirtaa? (Deebin keessan Miti yoo ta'e gara gaaffii lakk. 509 darbaa)	1. Eeyyeen 2. Miti	
508	Ulfa isa ammaa kana irratti rakkoon tasaa yoo si qunname konkolaataa akkamii fayyadamuuf qophoofta?	1. Konkolaataa Ambulaansii 2. Ambulansii aadaa 3. Konkolaataa dhuunfaa 4. Kan biraa, ibsi _____	
509	Ulfa isa ammaa kanaaf maallaqa yeroo rakkoon tasaa si qunname siif tahu qusachuu jalqabdee jirtaa? (Deebin keessan Miti yoo ta'e gara gaaffii lakk. 601 darbaa)	1. Eeyyeen 2. Miti	
510	Ulfa isa ammaa kanaaf maallaqa yeroo rakkoon tasaa si qunname itti fayyadamtu hanga amma qarshii meeqa qusatte?	_____Qarshii	

Kutaa Jaha:Qophii Dahumsaafi Rakkoolee Dahumsaan Walqabatan Irratti Hirmaannaa Abbaa Manaa

Lakk.	GAAFFIILEE	DEEBII	QORANNOO
601	Ulfa ammaa kanaaf bakka itti deessuu adda baafachuuf abbaan manaa kee si gargaaree jiraa	1. Eeyyeen 2. Miti	
602	Ulfa ammaa kanaaf nama si deessisu adda baafachuuf abbaan manaa kee si gargaaree jiraa?	1. Eeyyeen 2. Miti	
603	Ulfa ammaa kanaaf balaan tasaa yoo si muudate nama dhiiga siif arjoomu adda baafachuuf abbaan manaa kee si gargaaree jiraa?	1. Eeyyeen 2. Miti	
604	Ulfa ammaa kanaaf balaan tasaa yoo si muuddate konkolaataa ittiin deemtu adda baafachuuf abbaan manaa kee si gargaaree jiraa	1. Eeyyeen 2. Miti	
605	Ulfa ammaa kanaaf qarshii yeroo dahumsaaf tahu qusachuu irratti abbaan manaa kee si gargaaree jiraa?	1. Eeyyeen 2. Miti	