



**ASRAT WOLDEYES HEALTH SCIENCE CAMPAS,
DEPARTMENT OF PUBLIC HEALTH**

**HUSBAND INVOLVEMENT IN BIRTH PREPARDNESS-COMPLICATION
READINESS AND ASSOCIATED FACTORS AMONG HUSBANDS IN
SIYADEBRNAWAYU WOREDA, NORTH SHOA ZONE, AMHARA REGION,
ETHIOPIA, 2022.**

BY:

RAHEL YEHEYES (BSc)

**A RESEARCH THESIS SUBMITTED TO DEBRE BERHAN UNIVERSITY, ASRAT
WELDEYES HEALTH SCIENCE CAMPUS, DEPARTMENT OF PUBLIC HEALTH
IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR DEGREE OF
MASTERS IN REPRODUCTIVE HEALTH.**

**NOVEMBER, 2022
DEBRE BERHAN, ETHIOPIA**

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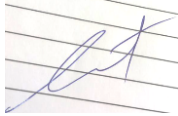
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Asrat Woldeyes Health Science Campus

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List of Abbreviations

ANC	Antenatal Care
AOR	Adjusted Odds Ratio
BPCR	Birth Preparedness and Complication Readiness
CI	Confidence Interval
ICPD	International Conference for Population Development
JHPIEGO	Johns Hopkins Program for International Education Gynecology and Obstetrics
MMR	Maternal Mortality Ratio
SD	Standard Deviation
SDG	Sustainable Development Goal
SPSS	Statistical Package for Social Science

Abstract

Background: Husband involvement in maternal health services utilization remains a major public health challenge in the developing world. Therefore, increasing male awareness of danger sign of obstetric complication and involvements in BP practices is necessary to improve the women's health and reduce maternal mortality.

Objective: To assess husband's participation in birth preparedness-complication readiness and associated factors among husbands whose wife's had infants, in Siyadebrnawayu Woreda, North Shoa zone, Amhara region, Ethiopia, 2022.

Methods: Community based cross-sectional study was carried out from Jun to July 10/2022. A total of 713 husbands whose wife's had infants, were selected from study population by using Multi stage-sampling technique. Data were collected by using an interviewer-administered structured questionnaire. The data were entered using EPI Data version 4.2 and analyzed using SPSS version 24. Descriptive analyses were computed. Bivariate and multivariate logistic regression analyses with the resulting crude (COR) and adjusted odds ratios (AOR) and associated 95% confidence interval (CI) were used to verify strength of associations between variables. Significant associations were declared at a p-value less than 0.05.

Results: Data were obtained from 713 husbands, yielding a response rate 100%.The proportion of the husband's involvement in BP/CR was 33.9% at 95% CI (30.6–37.4%). After adjusting for the effect of confounding variables using logistic regression, variables like husband's age[AOR = 1.7, 95% CI:1.1,2.7], husband's educational status[AOR = 2.4, 95% CI:1.3,4.6], Income[AOR = 5.5, 95% CI:2.7,11.1], husband's knowledge of danger sign during postpartum[AOR=2.7,95% CI:1.6,4.5], Wife's parity[AOR = 2.5, 95% CI:1.4,4.3] and made a postpartum plan with their wife[AOR = 4.4, 95% CI:2.9,6.6] have statistically significant association with husband's involvement in BP/CR.

Conclusion & Recommendations: Male involvement in BP/CR is still low in this study. The government and other responsible bodies should make efforts to increase

community based health education, awareness creation and improve husbands involvement in BP/CR.

Keywords: Birth preparedness, Complication readiness, Husband involvement.

1. Introduction

1.1. Background

Male involvement in birth preparedness plan and complication refers to all care and support that men give to their wives who are pregnant or experiencing the outcome of pregnancy in order to avoid death or disability from complications of pregnancy and child birth (1). The most important components of birth plan package include Recognition of danger sign, a plan for birth attendant, a plan for place of delivery, saving money for transport or other costs in case the need arise (2).

In many developing countries men are the key decision makers and chief providers, often determining women's access to economic resources. This practice has implications for maternal health as it determines the nutritional status of women during pregnancy. BP/CR cannot be achieved with the effort of single individual or party. It needs the involvement of the pregnant women and her partners, communities, facility setup, service providers and policy makers (3).

Attendance of husband at antenatal clinic is rare in many communities and it is difficult to find men accompanying with their partners during ANC and delivery. As one of the key component of BP/CR men's involvement in the area is strongly recommended by international conference for population development (ICPD) as emphasis should be made on men's shared responsibility and to promote their active involvement in maternity care (4).

A strategy to reduce maternal morbidity and mortality, BP/CR plan was used as a prioritized intervention in order to reduce home delivery and decrease maternal morbidity and mortality (5).

Husband involvement in BP/CR is not fully practiced in many parts of the country despite of mass awareness and campaigns.

The aim of this study will to assess the level of husband involvement in BP/CR in Siyadebrnawayu Woreda communities, and to identify the factors that influence this practice.

1.2. Statement of the problem

Hundreds of thousands of women are still passing away due to complication from pregnancy and /or childbirth every year universal. Several of these deaths go immeasurable. Attaining the Sustainable Development Goal (SDG) of a global MMR below 70 will require reducing global MMR by an average of 7.5% each year between 2016 and 2030. This will require more than three times the 2.3% annual rate of reduction observed universally between 1990 and 2015 (6).

Maternal mortality and morbidity associated to pregnancy and childbirth could be prevented if women and their families identify when and where to seek help, have access to the healthcare system during pregnancy, childbirth and the postpartum period and subsequently receive care from skilled provide(7).

Evidence showed that pregnant women were not found to be well prepared for birth and its complication. For example, only 47.8% of women who have already given birth in Indore city in India (8). 35% of pregnant women in Uganda(9).27.5% of pregnant women in Northern Nigeria were prepared for birth and its complication (10). Most of the findings from different pocket studies conducted in different parts of Ethiopia documented that <20% of women practice BPCR (11-13).

According to the study conducted in Chench district, Gamo Gofa Zone of southern Ethiopia. South nation nationality and peoples Region (SNNPR) even if which is a region with the highest fertility rates and fecundity male involvement is very low, 42% of men had awareness of danger sign and 9.4% of men were involved in BP practice(14).

Study conducted among households targeting husbands with having at least one child of less than one year of age in Ethiopia at Mekele town showed that variables like husband's awareness of postnatal danger signs, husband's knowledge in birth preparedness, male involvement in antenatal care (ANC), educational status, economic status, and place of residence were factors associated with husband involvement in BPCR (15).

A key strategy that has been identified to reduce maternal morbidity and mortality is BPCR and this has been included as an essential component of safe motherhood programs globally. Inadequate BPCR contributes to the delays in seeking skilled birth attendants which ultimately leads to bad obstetric outcomes(16). utilization of maternal health services and health-seeking behaviour have been shown to increase through the promotion of BPCR (17).

Lack of husband participation in BP plans and delays in care seeking for obstetric emergencies are main contributing factor of maternal death. BP has been found to be effective against decreasing these delays. Male involvement is essential for improving BP because of patriarchy which agree to 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(14).

Few studies conducted in Ethiopia, showed that husband involvement in BPCR was low and the area of study was selected by its lack of tangible previous research under this topic and its convenience access to the investigators. For example the study conducted in Kucha District, Gamo Zone showed that husband involvement in BP/CR was 30.2%.

Therefore, This study was conducted in Siyadebrnawayu Woreda to fill the gap by involving husbands (male) in BP practice, which minimizes the Child and maternal mortality.

1.3. Significance of the study

Husband involvement on BP/CR is significantly important for health quality of mother and newborn. Specially husbands whose wife's had infants as well as give as information for different stakeholders. Hence, there is a need to carry out the research with husband involvement on BP/CR and associated factors among husbands in Siyadebrnawayu Woreda, North Shoa zone, Amhara region, Ethiopia, 2022.

Improvement of male involvement is necessary in culturally dynamic societies like Ethiopia to enhance the women's health and reduce maternal morbidity and mortality. Therefore, male involvement in maternal health is necessary to ensure considerable reduction in maternal mortality.

Health extension workers who work at the community level, midwives, nurses and other health profession who works in maternity care center (ANC), delivery, postnatal (PNC), expanded program immunization (EPI), family planning(F/p)) unit and in the community setting will utilize this result of the research as reference in their counseling, health education session to minimize the maternal mortality rate and strengthen the good practices.

The finding of this study will be providing for the district health officer, regional health bureau and non-governmental health organization as relevant information for the future planning and intervention of appropriate strategy to promote and maintain husband involvement in BP/CR for community.

This finding of the study will also help in the higher educational institution to influence the curriculum in order to give emphasis on good husband involvement in BP/CR among husbands whose wife's had infants.

Lastly, the study can be used as reference for health professions especially maternity, neonatology, pediatrics and others who are interested to carrying out further study with regards. It can help future researchers being as source of initial clues.

2. Literature review

2.1. The Concept of Birth Preparedness and Complication Readiness

The birth of a baby should be a happy end to a pregnancy for the mother and her family. Yet the physiological function of reproduction brings with it a number of possible results including grave risks of death and disability for the mother and her baby, predominantly in low and middle income countries(18).

There have been significant reductions in maternal and newborn mortality over the last two decades. Yet in 2010, still there were approximately 287,000 maternal deaths, 2.6 million stillbirths and neonatal deaths, developing mostly from complications during and following pregnancy and childbirth (18).

In spite of the great potential for Birth Preparedness and Complication Readiness in reducing the maternal and newborn deaths its significance is not well known in most of sub-Saharan Africa (19).

The Maternal and Neonatal Health Program relied on these commonly cited factors can be prevented with advance preparation and prompt action, thus reducing the delays in seeking, reaching or receiving care. This is the core of Birth Preparedness and Complication Readiness (BP/CR). BP/CR is a comprehensive matrix that comprises the woman and her family, as well as the community, healthcare providers, facilities that serve them, and the policies that affect care for the woman and the newborn(3).

A study conducted in India suggested that Birth preparedness and complication readiness inspires women, households, and communities to make arrangements such as identifying or establishing available transport, set aside money to pay for service fees and transport, and identifying a blood donor in order to facilitate quick decision making and reduce delays in reaching care once a problem arises. Birth preparedness and complication readiness reduces delays in deciding to seek care. Birth preparedness encourages people to plan to have a skilled health care provider and complication readiness raises awareness of danger signs among women, families, and communities, thereby improving problem recognition

and reducing the delay in deciding to seek care. In general, birth preparedness and complication readiness promotes the use of a skilled provider at birth through increasing demand and improving access (20).

Similarly prospective follow-up study conducted in south Ethiopia also found that birth preparedness and complication readiness plan has significant effect in increasing skilled care usage during delivery and decreasing maternal mortality and morbidity (11).

2.2. Husband involvement on Birth Preparedness and Complication Readiness

Male involvement, an all-inclusive term which refers to “the various ways in which men relate to reproductive health problems and programs, reproductive rights and reproductive behavior”, is considered an important intervention for improving maternal health (10).

A cross-sectional study done in Dang District, Nepal showed that 57.6% of male were involved in BP/CR and 46.4% of male were not involved(21). And also studies done in Nay Pyi Taw, Myanmar stated that 42.4% of husbands Involved in BP/CR (22).

According to the study conducted on Determinants Of Male Involvement In Birth Preparedness among Married Men in Two Communities of Rural Northern Nigeria revealed that the level of male involvement in birth preparedness is unacceptably low (6.6%)(23).

In Ethiopia studies done in Akaki Kality, Sub City Addis Ababa indicated that Husbands involvements were comparatively higher,80.8% during childbirth (24). But difference across two towns: in Mekelle, Ambo Town , of the male partner had comparatively better involvements in BP/CR were about 60% and 50.8% respectively(15),(25).And also studies done in Gamo Gofa zone, Southern Ethiopia, involvement in BP practice was very low,9.4 % of men involved in birth preparedness practice(14).

In a study conducted in Wolaita Sodo town.in the proportion of husbands involvement in BP/CR was poor(30.9%) of husbands were involved in BP/CR (3).Similarly study in Kucha district, Gamo Zone, Southern Ethiopia revealed that about 30.2% of the male

partner had poor involvement in planning BP/CR (26). In another study conducted in Haramaya Health and Demographic Surveillance (HDSS) site in Eastern Ethiopia, the prevalence of the husband's plan to participate in BP/CR was 59.6% (27). In Axsum, Tigray region, Ethiopia, a study did show that the overall involvements of husbands in BP/CR were low, 46.9% of husbands were involved in BP/CR (28).

2.3. Factors associated with husband involvement in Birth preparedness - complication readiness

Involvement in BP/CR among husbands is influenced by different factors, and also those factors differ from one study area to another. Maternal deaths can be prevented partially through increasing awareness of danger signs of obstetric complications and involving husbands (male) in birth preparedness practice.

2.3.1. Socio-demographic and economic factors

The husbands' socio-demographic and socio-economic factors like (age, residence, religion, ethnicity, level of education, occupation, Number of wife, Average income, number of children, Family Size, Income earner).

A study done among 384 husbands in two tertiary hospitals in Kaski district, Pokhara, Nepal showed that husbands aged ≥ 31 years as the most significant age to involve husbands in BPCR than < 31 years old (29). In another study conducted in Kathmandu, Nepal indicated that the age above 25 years had a positive influence was significant implying that the probability of husbands' involvement in BP/CR were 2.51 times more likely to involve than less than 25 years (30). Whereas a study conducted in Wolaita Sodo town, Ethiopia, indicated that the age variable had a negative influence was significant implying that the probability of husbands participating in BP/CR with wives younger than 20 years were less likely to participate in BPCR as compared to husbands with wives aged 20–29 years and 30–39 years (3).

A study done among 384 husbands in two tertiary hospitals in Kaski district, Pokhara, Nepal showed that husbands Registered Health Insurance was 0.155 times more likely to involve husband in BPCR than not Registered Health Insurance (29)

The study conducted in Dang District, Nepal indicated that male Involvement was significantly higher among couples who had love marriage were found 3.66 times more likely to involved than arranged (21).

The study done in Dang District, Nepal indicated that those husband's who were occupied with other than agriculture work were 0.02 times less likely than Agriculture(21).

A comparative cross-sectional study described and compared male involvement in birth preparedness between rural and urban areas of Ogun State, Nigeria, In the urban area, showed that having tertiary education were 2.4 times more likely to involve in BP than formal education, In the rural area, and having tertiary education were 6.2 times more likely to involve in BP than formal education (10).In another study conducted in Dang District, Nepal Husbands who had formal education were 5.29 times more likely to involve in BP than Illiterate and informal(21) Similarly study conducted among 2178 married males in Kathmandu, Nepal showed that Husbands who had uneducated or primary level education were 5.68 times less likely to involve in BP than formal education(21). In another study conducted among 421 husbands in Kucha district, Gamo Zone, Southern Ethiopia found that Husbands who attend secondary and higher level of school were 3.1 times more likely to involve in BPCR than those who attend primary and below the level of school (26).

In a study conducted in Rural Northern Nigeria shows that husbands who earned same or less than their wives were 2.8 times more likely to have been involved in the practice of birth preparedness than those who not earned (23). And also studies done in Dang District, Nepal indicated that Husbands who earned money were 5.84 times more likely to involve than not earned (21).

A study done among 389 married men in Ugong, a northern Nigerian community, Besides, a higher proportion of non-Muslim men participated in maternity care compared to their Muslim counterparts (10).

A study done among 2178 married males in Kathmandu, Nepal showed Those husband's who had income NPR 5001 (1USD = 85 NPR) or above were 1.47 times more likely than those who did not (30). In another study conducted in Ambo Town, Ethiopia revealed that high Family monthly income of married males are more likely to had practiced BP/CR i.e those who had a monthly salary 1001–3000 ETB were 0.29 times less likely to be involved in BP/CR when compared to those who earned ≥ 5000 ETB (25).

2.3.2. Knowledge of danger signs and source of information related factors

Husbands Knowledge on danger signs (during pregnancy, delivery and postpartum) and Sources of information related factors.

Maternal deaths can be prevented partially through increasing awareness and knowledge of danger signs of obstetric complications and involving husbands(male)in birth preparedness practice which is one of the fundamental component of BP/CR (14).

The study conducted in district Rawalpindi, Sir Suba Shah showed that statistical association with their knowledge and practices,83% had adequate knowledge, 74% had adequate knowledge of obstetric danger signs about BP/CR among husbands, were low in rural settings of Rawalpindi district(31).

In a study conducted in Mekelle town revealed that husbands with good knowledge in the postnatal danger signs were 4 times more likely to participate in birth preparedness than those with poor knowledge(15).

The study conducted in Southern Ethiopia, The prevalence of men awareness of danger sign was low, 42% of men had awareness of danger sign involvement in birth preparedness practice and Those who had poor knowledge of danger sign of pregnancy (14).

A study done in Southern Ethiopia indicated that husbands who had awareness of danger signs of obstetric complications were two times more likely involved in birth preparedness practice than respondents who had no awareness of danger signs of obstetric complications (14)

In a study conducted in Haramaya revealed that husbands who had good knowledge of danger signs during labor and delivery were (2.84) nearly three times more likely to participate in BP/CR than those who had poor knowledge of birth plan (27).

2.3.3. Reproductive characteristics and health service utilization related factors

Reproductive characteristics and health service utilization like parity, Frequency of ANC visit, history of obstetric complication, having a discussion with spouse on the delivery, making postpartum plan following delivery, Long distance to the health facility, Registered Health Insurance.

A study conducted on male involvement in BP/CR for emergency obstetric referrals in rural Uganda showed that husbands whose wife's Primi gravidae mothers were 1.8 times more likely to involve in BP than multi gravidae mothers(32).

In a study conducted in rural Uganda showed that husbands whose wife's had presence of pregnancy complications were 1.4 times more likely to involve in BP than absent of pregnancy complications(32).

The study conducted in rural Uganda showed that husbands whose wife's had delivered of caesarean section were 1.6 times more likely to involve in BP than vaginal delivery (32).

A community based cross-sectional study was carried out among 421 husbands in Kucha district, Gamo Zone, Southern Ethiopia found that Husbands whose wife attended four and more ANC visits were 4.91 times more likely to be involved in BP/CR plan than those who received ANC follow up twice(26).

The study conducted among 421 husbands in Kucha district, Gamo Zone, Southern Ethiopia showed that Husbands whose house located far from a health care facility with a

distance greater than 5km were 2.35 times more involved in BP/CR than those near to health care facility with a distance of less than 5km (26).

A community based cross-sectional study was conducted among 421 husbands in Kucha district, Gamo Zone, Southern Ethiopia. Husbands who arranged for means of transportation before delivery were 2.9 times more likely involved BP/CR than those who were not arranged for means of transportation (26).

The study conducted in Haramaya found that husbands who discussed with their spouse the place of delivery were 6.8 times more likely to participate in BP/CR than those who did not discuss the place of delivery with their wives (27). Similarly, another study conducted in Wolaita Sodo town shows that husbands who discussed with their wife's the place of delivery were 6.84 times more likely to participate in BP/CR than those who did not involve in the discussion process (33).

In a study conducted in Haramaya found that Moreover, husbands who had a postpartum plan with their wife's were 2.3 times more likely to participate in BP/CR than those who did not make plans anymore (27). Similarly, another study conducted in Wolaita Sodo town showed that participants who had made a postpartum plan with their wife were 2.30 times more likely to participate in BP/CR than those who had not made a plan (33).

Summary of reviewed literature

The literatures reviewed above showed that husband involvement in Birth preparedness and complication readiness is a major public health challenge in the developing countries needing the involvement of all stakeholders. Given that, husbands of Younger age, low income, uneducated husband and husbands who had 2 to 4 children in the poorest African countries, mainly in Sub Saharan African countries including Ethiopia, are low involvement in Birth preparedness and complication readiness.

Studies showed that, since recent times, attentions have been increasingly given to assess the prevalence of husband involvement in Birth preparedness and complication readiness across various countries including Ethiopia. In addition to the variations in the prevalence of Birth preparedness and complication readiness among countries, there are substantial variations in prevalence of Birth preparedness and complication readiness among various localities of a given country. Few studies conducted in Ethiopia, showed that husband involvement in BP/CR was low .This shows that there is a need for more assessment studies in different localities of the country to help to realize the prevalence Birth preparedness and complication readiness in the study area as well as at nationwide.

Regarding the associated factors of Birth preparedness and complication readiness, most of the previous studies have concentrated on similar sorts of factors related with the husband/spouse. Whilst, factors related with the Husband's Knowledge of danger signs have been given less emphasis. Above all, there are considerable disparities on the significance of associations of factors among different studies conducted in various countries, as well as among those studies which were conducted in various localities of a given country. As a result, considering some of the gaps reviewed above this study was designed to assess the prevalence of Birth preparedness and complication readiness among husbands whose wife's had infants, in Siyadebrnawayu Woreda and the associated factors in three groups; Socioeconomic and demographic related, Husband's knowledge of danger signs and Sources of information related and Reproductive characteristics related factors as depicted in the conceptual framework fitted underneath.

2.3. Conceptual framework

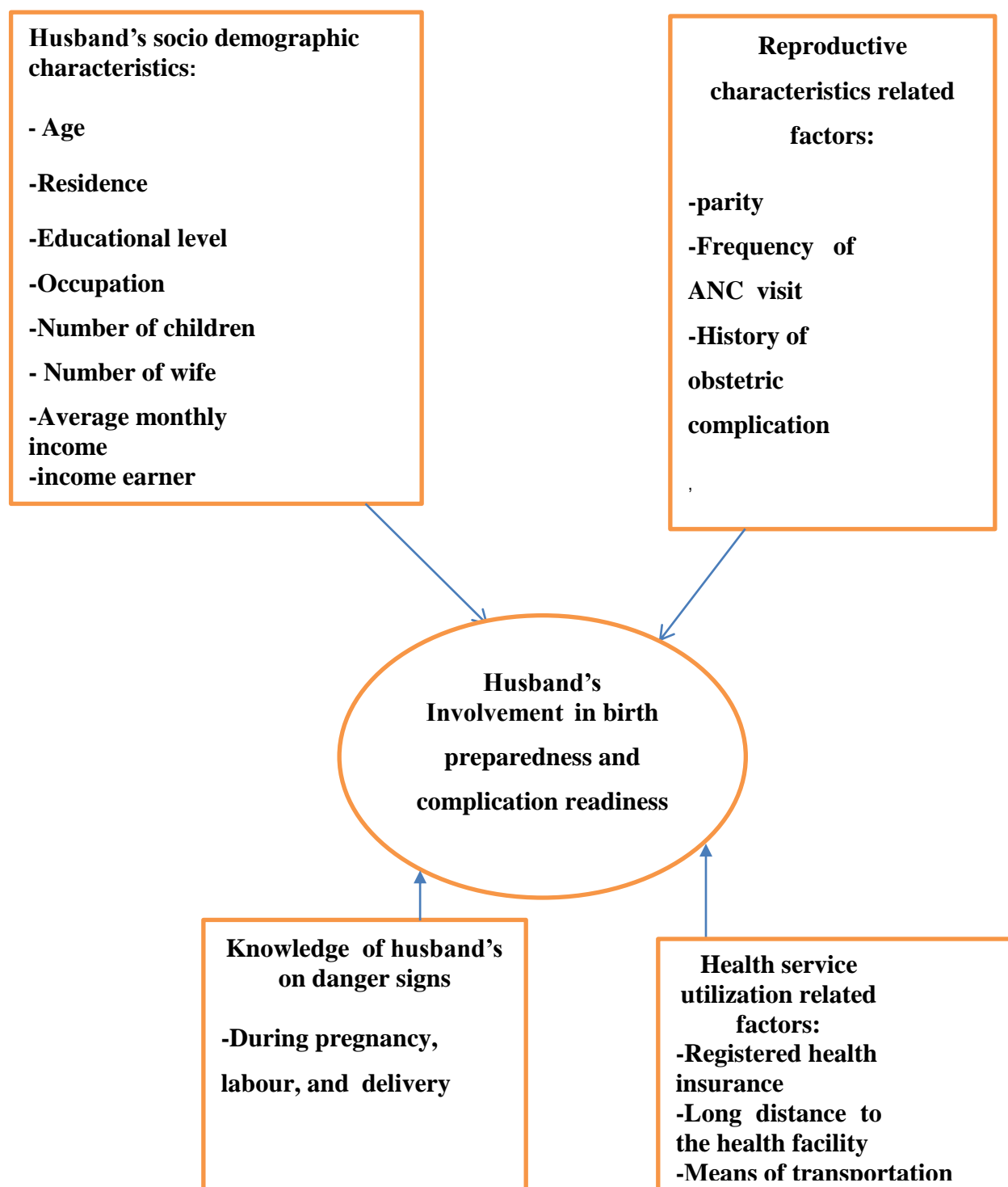


Figure 1. Schematic Presentation of the Conceptual Framework

Adapted from different literature reviews [10, 16, 17, 24]

3. Objectives of the study

3.1. General objective

- ❖ To assess husband's involvement in Birth preparedness-Complication readiness and associated factors among husbands whose wife's had infants in Siyadebrnawayu Woreda, North Shoa zone, Amhara region, Ethiopia, 2022.

3.2. Specific objectives

- To determine level of husband involvement in birth preparedness- complication readiness among husbands whose wife's had infants in Siyadebrnawayu Woreda, North Shoa zone, Amhara region, Ethiopia, 2022.
- To identify the associated factors of husband involvement in birth preparedness-complication readiness among husbands whose wife's had infants in Siyadebrnawayu Woreda, North Shoa zone, Amhara region, Ethiopia, 2022.

4. Methods

4.1. Study area

Siyadebrnawayu woreda is one of the twenty four woreda found in North Shoa Administrative Zone, is located 42Km from North Shoa Adminstive Zone, Debre Berhan town, the capital city of North Shoa Zone, Amhara region. It borders Morethna Jiru to the north, Oromia Region to the south , Ensaro to the west and Basona Werana to the east. It is sub-divided into 14 Kebeles. The total population of the woreda is about 76,085. Out of the total, the female population were 41,632 or 51.4%, and the male population were 34,453or 45.3%. The total number of mothers who have, infants in the woreda is 2366.

In Siyadebrnawayu health facility are found currently; 3 health center, 14 health post,7 private clinics and one primary hospital are found under North Shoa health bureau and it give service for the community.

4.2. Study design & period

Community based cross-sectional study was used from June 10/2022 to July10/2022..

4.3. Source population

All husbands whose wife's had infants living in Siyadebrnawayu Woreda

4.4. Study population

All husbands whose wife's had infants in the randomly selected kebeles in Siyadebrnawayu woreda.

4.5. Study unit

Husbands who are living in selected house hold of selected Kebeles during the study period.

4.6. Eligibility criteria

Inclusion criteria:

- ❖ Husbands whose wife's had infants and who lived in the study area a minimum of 6 months .

Exclusion criteria:

- ❖ They were not residents of Siyadebrnawayu woreda in the period of reference
- ❖ Husbands who were not staying together with their wives during pregnancy and birth of the child.
- ❖ Husbands are severely ill at the time of data collection

4.7. Sample size determination

The sample size was calculated in harmony with the study objectives using the following two ways. First, the sample size for the prevalence of husband involvement on BP/CR (the first objective) was calculated using single population proportion formula and basic assumptions as shown below.

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

Where: - n= sample size

z = critical value = 1.96 for 95% CI

p = Proportion of husband involvement on BP/CR prevalence of 30.2% taken from a study which was done previously, in kucha district, Gamo zone (26), and a 5% margin of error

d = precision (marginal error) = 5%

$$n = \frac{(1.96 \times 1.96 \times 0.302 \times 0.698)}{(0.05 \times 0.05)}$$

$$n = 324$$

Design effect of 2, is used (due to multistage sampling): $324 \times 2 = 648$

Thus, the total sample size calculated with assumption of 30.2% Husband involvement in birth preparedness prevalence is; 648 Husbands. Finally, by taking an estimated non-response rate of 10% into consideration (i.e. $648 \times 0.10 = 65$); the final sample size for the present study is determined to be $648 + 65 = 713$.

Expecting a 10% or 65 non-response rate are considered for eligible husbands who may refuse to participate, missed, the final sample size is calculated to be 713.

Sample size calculation for the second objective

By using Epi Info statistical software version 7.2 for cross-sectional study. I provided the calculated final sample size with the assumptions that I used to calculate the sample size in the table below (Table 1).

Sample size calculation for factor found to be significantly associated with husband involvement in BP/CR in previous studies done in Ethiopia and other studies.

Table 1. Sample size calculation for association factors

Variables	CI	Power	Proportion	OR	Sample size
Women related factors					
High Frequency of ANC visit	95	80	39%	4.91	365
Male partner related factors					
Husbands' higher educational level	95	80	55.4%	3.107	380
Long Distance to reach health facility	95	80	35%	2.35	320

Note: CI= Confidence Interval, OR= Odds Ratio

4.8. Sampling technique and procedure

Multi-stage sampling technique was used. In the first stage, Based on the assumption of 30% representativeness and by considering financial and time constraints. 5 kebeles was selected by a simple random selection (lottery) method from 14 kebeles found in Siyadebrnawayu Woreda.

The estimated number of households with husbands in all kebeles was obtained from the Siyadebrnawayu woreda Health Office that is 2366 HHs and the estimated number of house hold with husbands in each kebele were obtained from Each Keble's health extension family folders.

In the second stage, Households were allocated to each Kebele proportional to sample size. Finally, a systematic random sampling technique was used to select the study unit (participants) from the selected kebeles. And a total of 935households of which 237hhs from Deneba-01, 200hhs from Woledeneba, 140hhs from Abaya, 218 hhs from Esatamba and 140hhs from Gashu amba were listed. After getting the sampling participant in the selected kebele the first participant was obtained by lottery method among the first 2 units. However, in a household with more than one husband, only the husband one was selected. Then continue to select the participant on the 2th interval of the household until the sample size was reached. The following diagram sees the procedure of the sampling technique .

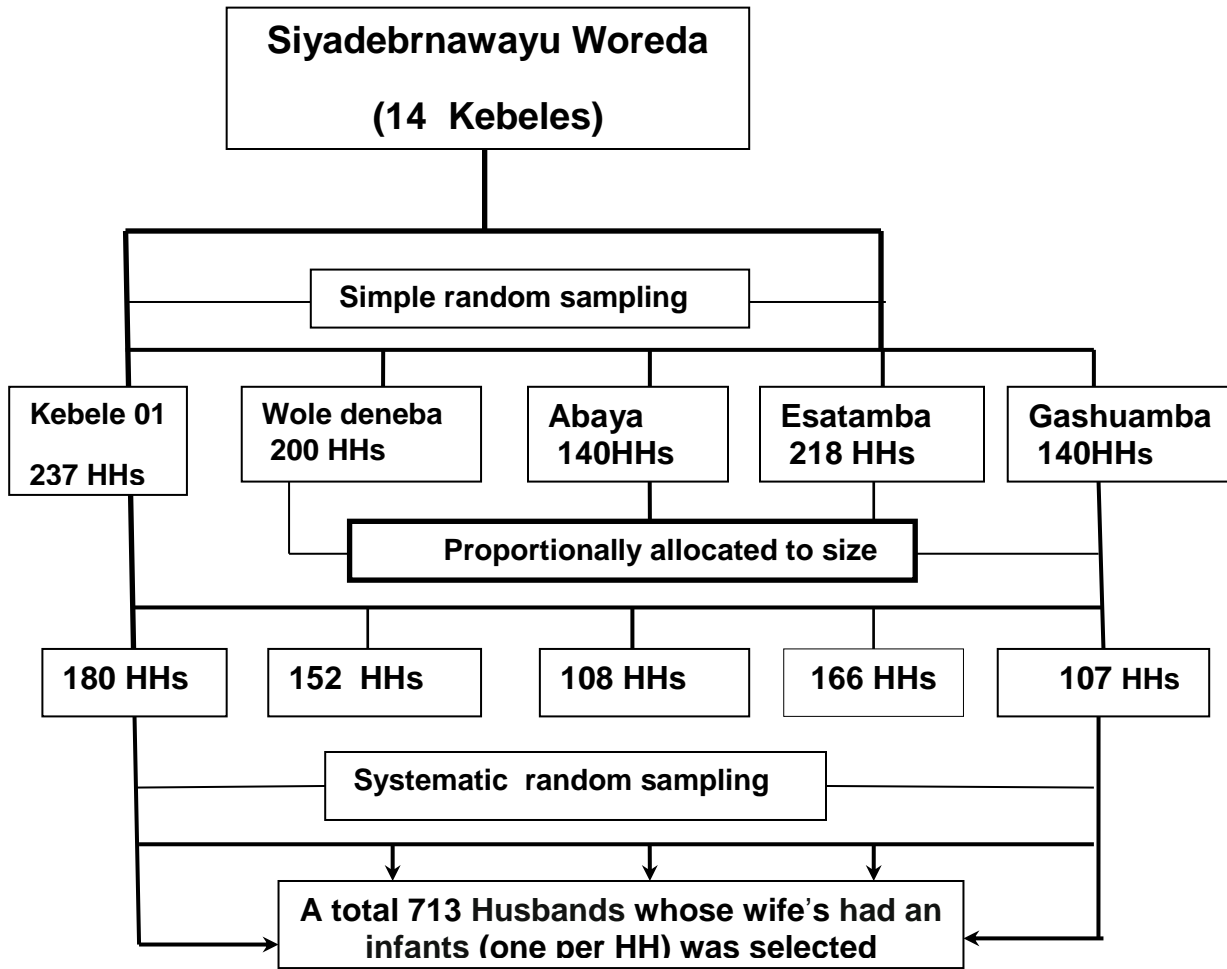


Figure 2.Schematic Presentation of the Sampling Procedure

4.9. Study Variables

4.9.1. Dependent variables

➤ Husband involvement in birth preparedness and complication readiness.

4.9.2. Independent variables

- **Socio demographic characteristics**

Age, residence, Educational level, Occupation, Number of wife, average monthly income, Number of children, income earner.

- **Husband's knowledge on danger signs and Sources of information related factors.**(during pregnancy, labour, and delivery)

- **Reproductive characteristics and health service utilization**

parity, Frequency of ANC visit, mode of delivery, history of obstetric complication, Long distance to the health facility, Registered Health Insurance, means of transportation.

4.10. Operational definitions

Husband involved in birth preparedness and complication readiness practice: men who are involved in at least in two Birth preparedness plan (a plan for skilled birth attendants, place of delivery, and arrangement of money for transport or other costs) (34).

Birth preparedness and complication readiness practice among husbands:-is a strategy to encourage husbands to be informed of the danger signs of obstetric complications and emergencies, choose a preferred birth place and attendant at birth, arrange for transport to the skilled care site in case of an emergency, saving or arranging alternative funds for costs of emergency care, and accompany her to emergency care. arrange a source of household support to provide temporary family care during her absence (35).

Good involvement in BPCR:-are those who Practiced at least five components from eight parameters of BPCR (34).

Poor involvement in BPCR:-are those who practiced less than five components from eight parameters of BPCR (34).

Knowledge of obstetrical danger signs: A husband is considered **good knowledge** of obstetric danger signs if he spontaneously mentioned at least two of the danger signs during each of the three periods (pregnancy, labor/childbirth, and postpartum); otherwise said to have **poor knowledge** of obstetric danger signs (24).

4.11. Data Collection tool and Procedures

The data collection was carried out by using structured face-to-face interview questionnaire, the maternal and neonatal health program handbook of the Johns Hopkins Program for International Education in Gynaecology and Obstetrics (JHPIEGO), monitoring BPCR was adapted. The questionnaire contains four main parts. Part I about Basic demographic information, part II about Knowledge on danger signs (during pregnancy, labour, and delivery) and Sources of information related factors, part III about Obstetric characteristics and health service utilization (23).

First, The questionnaire was developed in English and translated into the local language (Amharic) by language translator and translated back to English to keep the consistency before the actual data collection. A total of two-diploma midwifery, three BSc midwifery and two-health extension workers for data collectors and two-degree midwifery supervisors were recruited. Two-day training was given for data collectors and supervisors about the aim of study, relevance, the right of participant, informed consent and techniques of interview questioner by principal investigator. Supervisors were assigned to supervise along with principal investigator and facilitate and check the data collection processes. After taking informed consent, data was collected through both face-to-face interviews by using structured pretested questionnaires.

A multi-stage sampling technique (Selection of field sites (kebeles) and then selection of study participants) was used for identification of households to be approached in the selected Keble. In each Keble the households were counted and Unique Number was given for each house hold and the required number of households were randomly selected from a list of all households

where husbands whose wife's had infants of the required age of infants was available. If a selected husband refused to participate, another husband from a neighboring household was approached. However, in a household with more than one husband, only one will be selected. The interviews was be conducted in the respondent home when privacy was be ensured.

4.12. Data Quality Assurance

To ensure data quality, training was given to data collectors and supervisors for two day. The final questionnaire was administered in Amharic (native language). Before the actual data collection the questionnaire was tested by taking 5% of total sample size among Husbands whose wife's had infants in thirty-five participants from Mendida town. On spot checks, re-interviewing and checking completed questionnaires and quality of recordings was done via daily supervisions by field supervisors.

4.13. Data Processing and Analysis

First, the collected data were checked for completeness, consistency. Then, they were cleaned, coded, and entered into Epi Data version 4.2 for further analysis. The entered data were exported to SPSS version 24 for analysis. Descriptive and summary statistics were conducted and reported using frequency tables and figures. The outcome variable was recoded into binary outcome as “good participation = 1” and “poor participation = 0”. A binary logistic regression model was fitted to check for an association between independent variables and the outcome variable. Hosmer-Lemeshow goodness of fit test was used to check the assumption (P value = 0.153) of logistic regression model. A multivariable analysis was performed to identify the true predictors of the husband's involvement to participate in the BPCR plan. A multi-collinearity test was carried out to check the presence of correlation between independent variables by using the standard error and colinearity statistics, and no collinearity effects were detected. Thus, the value of the Variance Inflation Factor (VIF) was <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 in multivariable analysis.

4.14. Ethical Consideration

Ethical clearance and approval was obtained from Ethical Review committee of Debrebrehan University, Asrat woldeyes Health Science Campus, Department of public health. After ethical clearance is obtained, the responsible bodies of institutions were contacted with the letter for the commencement of the data collection. Each study participant was taken informed consent. Participants was informed explicitly about the purpose, benefit, risk, discomfort, and right to refuse or even withdraw at any time. And also participants was ensured of their privacy and confidentiality, while the interview was explained by the data collector. It also explains that the individual's identity was disclosed and response to the study was anonymous as a result. Oral consent was obtained from the study subject after they read and understood the conditions stated.

4.15. Dissemination of results

The study finding will be disseminated for relevant organization and stakeholders. The study finding will be submitted and presented to department of public health, Debre Berhan University, Asrat Weldeyes Health Science campus, Debre Berhan health research directorate, the report paper result also will be disseminated to the North Shoa zone health department, Siyadebrnawayu Woreda health office and interested organization and non-organization. Effort was made to present the result in locally or in workshops, conference and meeting. Finally, the possible effort will be used to publish the paper in local and international journals.

5. Results

5.1. Socio-demographic characteristics of the Respondents

A total of **713** sampled husbands whose wife's had infants were interviewed with a response rate of 100 %. The age of the study participants ranged from 18 to 53 years with a mean age of 34.80 (SD =±8.6). The majority of the study participants, 379 (53.2%) were between the ages of 30 and 39 years. Ethnic group almost all 708 (99.3%) were Amhara .In addition, near half of the respondents, 352 (49.4%) were attended from 9-12th grade and 208(29.2%) were had education status of diploma and above. Concerning occupational status of study participants 243(34.1%) were farmer, followed by merchant which was account for 229(32.1 %) of the total respondents (Table 2)

Table 2. Socio-demographic characteristics of respondents

Variables	Category	Frequency	Percent
Age	18–29	152	21.3
	30–39	379	53.2
	40–49	142	19.9
	>=50	40	5.6
Religion	Orthodox	703	98.6
	Catholic	1	0.1
	Protestant	9	1.3
Educational status of husband	No education	6	0.8
	Can read and write	101	14.2
	Primary school (1-8 th)	46	6.5
	Secondary school (9-12 th)	352	49.4
	College and above	208	29.2
Ethnicity	Amhara	708	99.3
	Oromo	5	0.7
	Governmental employed	204	28.6
	Private organizationemployed	27	3.8
Occupation of husband	Merchant	229	32.1
	Farmer	243	34.1
	Daily laborer	10	1.4
Number of currently living children	One	125	17.5
	Two	234	32.8
	Three	77	10.8
	Four	136	19.1
	Five and above	141	19.8
Family Number	1-2	57	8.0
	3-4	317	44.5
	>=5	339	47.5
Monthly house hold income	1001–3000	126	17.7
	3001–5000	297	41.7
	≥5000	290	40.7
Income earner	Only husband	395	55.4
	Both husband and wife	318	44.6

5.2. Husband's Knowledge of danger Signs during Pregnancy, Labor and Delivery and postpartum.

During each period, the respondents were asked to mention danger signs they knew. And. severe vaginal bleeding was mentioned by 390 (54.7%) during pregnancy, 311(44.2%) during labor and delivery and 255 (35.8%) during postpartum period. Vaginal bleeding was the most recognized danger sign and seizure or convulsion 41 (5.8%) was the least mentioned danger sign during pregnancy, High fever 53(7.4%) were the least recognized danger signs during labor and delivery and Blurred vision 48 (6.7%) were the least recognized danger signs during postpartum.

Knowledge of obstetric danger signs were measured at three periods. There were components used to measure at each period. The knowledge of obstetric danger sign of the respondents were computed at each period using spontaneously mentioned two and above of the danger signs during each of the three periods (pregnancy, labor/childbirth, and postpartum) as good knowledge otherwise said to have poor knowledge for each. The good knowledge respondents about obstetric danger signs during pregnancy, delivery and postpartum period was 313(43.9%), 315(44.2%) and 237(33.2%) respectively.(Table 3)

Table 3. Husband's knowledge of danger signs during pregnancy, labour and delivery and postpartum among husbands in Siyadebrnawayu Woreda, North Shoa zone, Amhara region, Ethiopia, 2022.

Variable	Option			
	Yes		No	
	Freq(no)	Per(%)	Freq(no)	Per(%)
Danger sign during pregnancy	313	43.9	400	56.1
Vaginal bleeding	390	54.7	323	45.3
Severe headache	151	21.2	562	78.8
Blurring of vision	133	18.7	580	81.3
Convulsion	41	5.8	672	94.2
Swollen hands/face	111	15.6	602	84.4
High fever	50	7.0	663	93.0
Accelerated/reduced fetal Movement	66	9.3	647	90.7
Danger signs and symptoms during labor and delivery	315	44.2	398	55.8
Vaginal Bleeding	311	43.6	402	56.4
Severe headache	515	21.2	562	78.8
Blurred vision	63	8.8	650	91.2
Convulsion	68	9.5	645	90.5
Labour lasting >12 hours	188	26.4	525	73.6
High fever	53	7.4	660	92.6
Retained placenta	75	10.5	638	89.5
Danger signs and symptoms during postpartum period	237	33.2	476	66.8
Vaginal Bleeding	255	35.8	458	64.2
Severe headache	122	17.1	591	82.9
Blurred vision	48	6.7	665	93.3
Convulsion	60	8.4	653	91.6
Swollen hands/face	63	8.8	650	91.2
High fever	86	12.1	627	87.9
Malodorous vaginal discharge	78	10.9	635	89.1

5.3. Husband’s Source of Information about BP/CR Plan.

Concerning to ever heard BP/CR about 290(40.7%) were had information, of which respondents the major source of information about BP/CR where,164(33%) of them were heard from health centers followed by health extension (12.3%), Radio and Tv (7.6%), relatives (7.4%), and the remaining 6.3% of the heard from hospitals .(Table 4)

Table 4. Source of information about BP/CR in Siyadebrnawayu Woreda, North Shoa zone, Amhara region, Ethiopia, 2022.(N=713).

Variables		Category	Frequency	Percentages
Ever heard “birth preparedness-complication readiness		Yes	290	40.7
		No	423	59.3
Variables	Category		Frequency	Percentages
Major sources of information about BPCR (N= 713)	Health center	Yes	164	23
		No	594	77
	Health extension	Yes	88	12.3
		No	625	87.3
	Radio and Tv	Yes	54	7.6
		No	659	92.4
	Relatives	Yes	53	7.4
		No	625	92.6
	Hospital	Yes	65	6.3
		No	688	93.7

5.4. Reproductive characteristics of respondent’s wife

In respect to parity 605(84.9%) of the respondent’s wife were of Multi para 629(88.2%) of the respondents were have 2 to 4 children, followed by 84(11.8%) were had only one child. Majority of the respondents were found to be planed for delivery 694(97.3).Both husband and their wife made plan for delivery were 464(65.1%) and 212(29.7%) husband only were made plan for deliver respectively. Majority of respondent’s wife 524(73.5%) were delivery at health center, 187 (26.2%) of respondent’s wife delivered at hospital and Two

(0.3%) of respondent's wife delivered at home. From those respondents 2(0.3%) mentioned distance from health facility is too far as reason for home delivery.

Eighteen (2.5%) of respondent's wife had faced obstetric complications at past pregnancy. and 40(5.6%) women said that they experienced bleeding during pregnancy. Concerned to decision making to seek health care facility, 464(65.1%) decisions were made together by discussion. (Table 5)

Table 5. Reproductive characteristics of respondent's wife in Siyadebrnawayu Woreda, North Shoa zone, Amhara region, Ethiopia, 2022.

Variables	Response	Frequency	Percent	
Parity of wife	Primi para	108	15.1	
	Multi para	605	84.9	
ANC follow up	Yes	713	100	
	Once	58	8.1	
ANC visit	Two times	70	9.8	
	Three times	215	30.2	
	Four times and above	370	51.9	
Made a plan for deliver	Yes	694	97.3	
	No	19	2.7	
Place of birth	Hospital	187	26.2	
	Health center	524	73.5	
	Home	2	0.3	
why didn't your wife deliver in a health facility	Cost too much	No	713	100
	Facility not open	No	713	100
	Too far	Yes	34	4.8
		No	679	95.5
	No transportation	Yes	30	4.2
		No	683	95.8
	Quality service	No	713	100
Mode of delivery	Spontaneous vaginal delivery	581	81.5	
	Caesarean Section	107	15.0	
	Assisted (Instrumental delivery)	25	3.5	
Experience of problem during this pregnancy problems experienced	Yes	18	2.5	
	No	695	97.5	
	Bleedings	Yes	40	5.6

		No	673	94.4
	Severe headache	Yes	15	2.1
		No	698	97.9
	Blurred vision	Yes	7	1.0
		No	706	99.0
	Convulsion	Yes	3	0.4
		No	710	99.6
	High fever	Yes	8	1.1
		No	705	98.9
	Loss of consciousness	Yes	2	0.3
		No	711	99.7
	Bleedings	Yes	40	5.6
		No	673	94.4
	Severe headache	Yes	6	0.8
		No	707	99.2
	Blurred vision	Yes	5	0.7
		No	708	99.3
Which one of these problems was the most severe?	Convulsion	Yes	2	0.3
		No	711	99.7
	High fever	Yes	1	0.1
		No	712	99.9
	Loss of consciousness	Yes	2	0.3
		No	711	99.7
Distance to reach health facility	Greater than 5 km		338	47.4
	Less than 5 km		375	52.6
	By foot		133	18.7
Mode of transportation used to reach to health facilities	Public transport (Bus, tax and motorcycle)		317	44.5
	Ambulance		246	34.5
	Private vehicle		17	2.4
Registered Health Insurance	Yes		407	57.1
	No		306	42.9
Having a discussion with spouse on the delivery?	Yes		407	57.1
	No		306	42.9
Making postpartum plan following delivery?	Yes		399	56
	No		314	44

5.5. Levels of husband involvement in BP/CR.

Eight variables were used to measure the status of husband’s involvement in BP/CR, 242(33.9%) at 95% CI (30.6–37.4%) fulfilled five or more variables and leveled as having good involvement. (Figure 3)

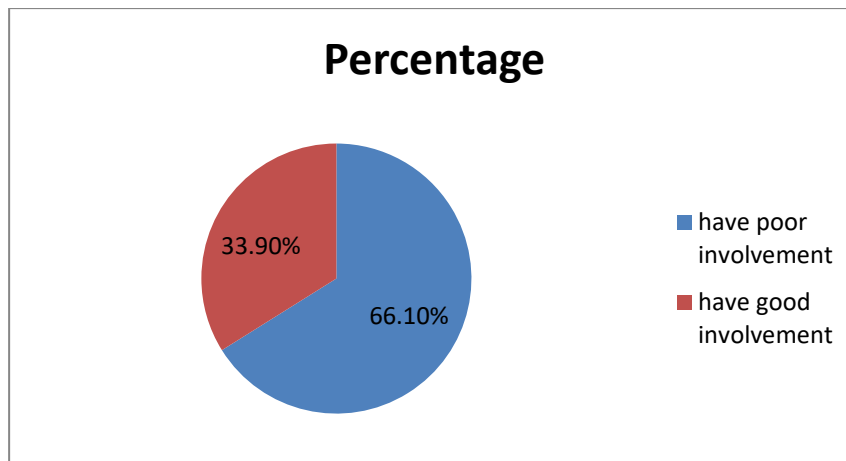


Figure 3. proportion of husband involvement in BP/CR Practices among husbands in North Shoa Siyadebrnawayu, Zone, Amhara Region, Ethiopia, 2022

5.6. Factors affecting Husband’s involvement in Birth Preparedness-Complication Readiness

Binary logistic regression was done to identify factors associated with Husband’s involvement in BP/CR. In bivariable logistic regression analysis husband’s age, husband’s educational status, husband’s income, husband’s knowledge of danger signs during postpartum, Wife’s parity, experienced problem previous pregnancy, husband’s knowledge of danger signs during pregnancy, and making postpartum plan following delivery on husband’s involvement in BP/CR were all associated predictor with respect to effective Husband’s involvement in BP/CR at p-value of 0.25. All variables that have p-value of 0.25 were included in the multivariable logistic regression analysis model. In multivariable logistic regression analysis; husband’s age, husband’s educational status, husband’s

income, husband's knowledge of danger signs during postpartum, Wife's parity, and making postpartum plan following delivery on Husband's involvement in BP/CR were significantly associated factors at p-value of <0.05.

Husbands of age above 31 years were 1.7 times (AOR=1.765; 95%CI: (1.147-2.71) more likely to be involved on BP/CR than <31years old.

Regarding the education, the husbands who had secondary and higher education were 2.4 times(AOR=2.490; CI=(1.337-4.639) more likely to be involved in BP/CR than those who had primary and below educational level.

Husbands who had a monthly income and ≥ 5000 ETB were 5.5 times (AOR =5.553, 95% CI: (2.7– 11.1) more likely to be involved in BP/CR when compared to those who earned 1001–3000 ETB.

On the other hand, of the husband's knowledge on obstetric danger signs predictors, knowing of obstetric danger signs during postpartum found to be another predictor factor. Likewise, the study signifies that a husbands who had good knowledge of danger signs during postpartum were 2.7 times (AOR= 2.764, 95% CI: (1.6-4.5) more likely to participate in BP/CR than those husbands who had poor knowledge of danger signs during postpartum. Finally, husbands whose wives primi paras were 2.5 times (AOR = 2.5, 95 % CI: (1.4 – 4.3) more likely to involve in BP than Multipara and participants who had made a postpartum plan with their wife were 4.4 times (AOR = 4.4, 95 % CI: (2.9 – 6.6) more likely to participate in BP/CR than those who had not made a plan. (Table 6)

Table 6. Bivariable and Multivariable analysis of factors associated with involvement on BP/CR among husbands in siyadebrna wayu woreda, North Shoa Zone, Amhara Region, Ethiopia, 2022. (n=713).

Variables	Husband Involvement		COR (95% CI)	AOR (95% CI)
	Involved No (%)	Not involved No (%)		
Husbands of age				
>=31	194 (38.3)	313(61.7)	2.040(1.410-2.952)***	1.765 (1.1-2.71) **
<31	48(23.3)	158 (76.7)	1	1
Experienced problems				
Yes	18 (52.9)	16 (47.1)	2.285(1.144-4.566)*	2.708(0.84-8.66) *
No	224 (33.0)	455 (67.0)	1	1
Educational status				
Secondary & higher education	225 (38.6)	358 (61.4)	4.178(2.443-7.143)***	2.4(1.3 –4.6) ***
Primary & below education	17 (13.1)	113(86.9)	1	1
Have knowledge of danger sign during Pregnancy				
Good knowledge	131 (39.3)	202(60.7)	1.572(1.1-7.2.1)***	1.3 (0.886-2.0)*
Poor knowledge	111(29.2)	269 (70.8)	1	1
Income				
>=5000	115(39.7)	175 (60.3)	7.1(3.840-2.13.139)***	5.55(2.76-11.1)***
3001-5000	114(38.4)	183(61.6)	4.085(2.1-2.7.659)***	7.341(3.7-14.4)***
1001-3000	13 (10.3)	113 (89.7)	1	1
Have knowledge of danger sign during Postpartum				
Good knowledge	406(74.1)	142(25.9)	4.399 (3.050-6.343)***	2.7 (1.6 – 4.5) ***
Poor knowledge	65 (39.4)	100 (60.6)	1	1

Wife's Parity				
Primi para	70 (64.8)	38 (35.2)	4.637(3.00-7.148)***	2.5(1.48 – 4.3) ***
Multipara	172 (7.11)	433(91.9)	1	1
Making post partum plan for delivery				
No	185 (46.4)	214 (53.6)	1	1
Yes	57 (18.2)	257 (81.8)	3.898 (2.732-5.520)***	4.4(2.91-6.677)***

1= Reference category, ***= P-value < 0.01, **= P-value < 0.05, *= P-value < 0.25

Bold = Significant association in multiple logistic regression analysis.

6. Discussions

Accordingly, Overall proportion of husband's involvement in BP/CR was 33.9 % at 95% CI (30.6-37.4). This shows that more than half of husband's not involve in BP/CR. In this study considerably below the study finding in Tigray region, Ethiopia (60.4%) (36), Ambo Town (50.8%) (25), axum town(46.9%)(28), and, Nepal(44.36%)(21). This may be due to differences in socio-economic and educational status of respondents between the studied areas. However, the finding was higher than study done in Chenchä district of Gamo Gofa Zone of southern Ethiopia(9.4%)(8), Kucha district, Gamo Zone, Southern Ethiopia(30.2%)(26), and Rural Northern Nigeria(6.6%)(23). The reason why this finding is higher may be due to recentness of the study and the Ethiopian government's emphasis on health extension Program that made the majority of men aware of BP/CR which may be increase awareness of husbands participation in BP/CR.

Finally, the study pointed out that participants who had good knowledge of danger signs during post partum were 2.7 times more likely to participate in BP/CR than those who had poor knowledge of danger signs during postpartum. The findings of the present study was consistent with previous studies conducted in Mekele, Ethiopia in which husband's knowledge of danger signs predicts the level of birth preparedness practices (15). The possible justification is because knowing about danger signs encourages husbands to seek healthcare service and to participate in BP/CR; as improving husband's awareness and skills could make them involved more in their wives' health status.

Husbands of age ≥ 31 years were 1.7 times more likely to be involved on BP/CR than < 31 years old. This is consistent with the studies done in Wolaita Sodo town(3) and Nepal(29). A possible explanation for this relationship may be that older husbands would have experienced complications on their wife's previous pregnancies, there by trying to prevent any such problems for the current wife's pregnancy.

In this study, husband's educational level was one of the significant factors in promoting husband involvement in BP/CR, Husbands who attend secondary and higher level of the school were 2.4 times more likely to involved in BP/CR plan than those who attend

primary school and below. This finding is supported by the study from northern Nigeria and Ambo Ethiopia (10),(25). This might be due to the fact that educated husbands may be more open to ward health care service and aware of the benefits of skilled attendance and more able to talk with health workers and seek appropriate care for their wives.

Husbands who had a monthly salary ≥ 5000 ETB were 5.5 times more likely to be involved in BP/CR when compared to those who earned 1001–3000ETB. This finding was in agreement with findings of previous studies which were conducted in Ambo Town town (25). This might be due to the fact that men with the highest economic status buy radio and other media to get more information about maternal health.

Parity which was measured by number of children in this study was a significant factor associated with husband involvement in BP/CR. Participants whose wives primi paras were 2.5 times more likely to involve in BP/CR than those with multiparas. This can be explained by the fact that respondent's wife with a parity of one are high involved of husbands in BP/CR than parity of two to four. This findings was also supported by studies conducted in rural Uganda (32). This could be because of freshness that might force to give ears secondary to the high-risk perception than those who had experience of having a child. This shows that increasing risk perception might help in improving BP/CR.

Participants who had made a postpartum plan with their wife were 4.4 times more likely to participate in BP/CR than those who had not made a plan. This finding was supported by findings from previous studies conducted in Haramaya (27) and Wolaita Sodo, Southern Ethiopia (33). The possible explanation is that having no postpartum plan was a significant risk factor that endangered or led to the mother's death due to the first two delays in providing care, which is seeking care and reaching a health facility. As a result, preparing for delivery and postpartum care, as well as dealing with unexpected problems, as soon as possible can save the mother's life. Finally, it is very crucial to give more emphasis on BP/CR as pregnancy-related complications continue to be a major cause of maternal deaths in Sub-Saharan Africa. Appropriate preparation for BP/CR by women, male partners, families, and the community has the potential to lower these preventable risk factors. Moreover, policies, programs, and practices could focus on improving male partners' level

of knowledge about complications related to pregnancy and childbirth, and the importance of preparing, and planning for childbirth.

7. Strength and Limitations

7.1. Strength of the study

The strength of this study was that a large sample size was used, Selection bias was minimised by using probability sampling method, and study participants were interviewed to collect data. This study presents evaluating it from the husband's perspective. Data collectors were trained to teach those who did not prepared for delivery and also about the complications.

7.2. Limitation of the study

Measuring the temporal relationship was not easy, as both exposure and outcome variables were collected simultaneously. And also there could be a problem of recall bias even though reduced to one year, as the husbands were expected to remember events that occurred up to one year before the study and data were collected by asking husbands to mention the obstetric danger sign they know and activity they made without reading the options for them. To minimize his one year was used. Additionally, there could be social desirability bias especially when husbands were asked regarding cares they given. The husbands could respond as they were done without performing the activities.

8. Conclusions

Based on findings, this study concluded that less than half of the husband were involved in BP/CR. Majority of the study subjects had poor husband's involvement and practices in BP/CR. There are poor knowledge of danger signs during pregnancy, childbirth and the postpartum period. Therefore effective education should be provided to the husbands with rational to improve the maternal and child health. husband's age, husband's educational status, Income, husband's knowledge of danger sign during postpartum, Wife's parity and made a postpartum plan with their wife were significantly associated predictor of husband's involvement in BP/CR.

9. Recommendations

For North Shoa Zone Health Department and Health Office

- ✓ Should make efforts to increase community based health education, awareness creation and improve male partner's involvement in BP/CR for community.
- ✓ The woreda health office should also strengthen the health education about husband's participation in BP/CR and danger signs of postnatal period to increase the Maternal and child health services.

For health care professionals

- ✓ Creating awareness on BP/CR, danger signs of postpartum both at community and institutional level were recommended in order to increase male involvement in BPCR.
- ✓ Should be encouraged to involve husbands while explaining BP/CR with a special emphasis on low income, Younger (< 31 years), uneducated husband and husbands who had 2 to 4 children in order to improve the practice in the study area.

For future researchers

- ✓ Should conduct similar studies in areas (health facilities) where not studied yet
- ✓ Should attempt to implement similar studies also incorporating longitudinal studies triangulated by qualitative methods

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11. Annexes

11.1. Annex-I: Respondents Information Sheet English Version

Class One : Information Page

Introduction

Read this article to introduce yourself!!

My name is Rahel Yeheyes. I came from Debre Berhan University, Asrat Woldeyes Health Science Campas,the purpose of the study which is the participation of husbands during pregnancy and childbirth and the problems that husbands do not participate to collect information in a study on, I ask you questions to help with this study. The information from this study is intended for educational and educational purposes only. Therefore, any information you provide for this study will be kept confidential, and I want to assure you that it will not take more than 20 minutes to conduct this interview. Therefore, I humbly ask you to voluntarily participate in this study.

Are you willing to start the query? yes  Go to the questionnaire

I am not  pull over

If you would like to know more about the study or have a related opinion, you can do so using the address of the researcher below.

Name: Rahel Yeheyes

Phone Number: 0911441607

Email: rahelyes@gmail.com

11.2. Annex -II:Informed consent form

Agreement Verification

I was invited to this study by data collectors from Debre BerhanUniversity. I have read or read the above information. I also had the opportunity to ask a variety of questions, and my questions were answered appropriately. Therefore, I would like to volunteer to participate in this study.

Participant signature _____

day____/____/_____

For those who cannot read or write

I testify that I have read the license properly and that the individual had the opportunity to ask a variety of questions. By my name and signature below, I certify that the participant is willing to participate in the questionnaire.

Witness Name _____ Witness Signature _____ Participant's finger Finger print



11.3. Annex- III: English version questioner

The query Tag No.

Day

The name of the kebele

Name of data collector

Class A : General Response Information

No.	Questionnaire	Alternative answer	Skip
101	Place of residence	1. Semi urban 2. Rural	
102	Age	_____ year	
103	What is your religion?	1. Orthodox 2. Muslim 3. Catholic 4. Protestant 22. Others (specify)	
104	What is Your educational status.	1.No education 2. can reading and writing 3. Primary school (1-8) 4. Grade 9-12 5. Diploma certified	

		6. Degree and above 22. Others (specify)	
105	What is your wife`s level of education?	1. No education 2. can reading and writing 3. Primary school (1-8) 4. Grade 9-12 5. Diploma certified 6. Degree and above 22. Others (specify)	
106	Nation	1. Oromo 2. Amhara 3. Gurage 22. Others (specify)	
107	What is your occupation?	1. Governmental employed 2. Private organizationemployed 3. Merchant 4. Farmer 5. Daily laborer 22. Others (specify)	
108	What is your wife`s	1. Housewife	

	occupation?	2. Governmental employed 3. Private organizationemployed 4. Merchant 5. Daily laborer 22. Others (specify)	
109	Currently How many wives do you have?	Number of wives _____	
110	The number of your children	Number of children _____	
111	Your family size	Family size _____	
112	What is your average monthly income in birr?	_____ Birr	
113	Who is the income earner in your family?	1. Husband only 2. Wife only 3. Both husband and wife	

Part Two: Knowledge on danger signs related factors and Sources of information			
201	In your opinion, can unforeseen problems related to pregnancy or child birth occur that could endanger the life of a woman?	1. Yes 2. No.	If your answer is Option 2 , please go

			toQuestion "No. 203"
201.1	<p>In your opinion, what are some serious health problems that can occur during pregnancy that could endanger the life of a pregnant woman?</p> <p>(multiple answer is possible)</p>	<ol style="list-style-type: none"> 1. Bleeding 2. Severe headache 3. Blurred vision 4. Convulsions 5. Swelling of hands / face 6. high fever 7. Loss of consciousness 8. Difficulty breathing 9. Severe weakness 10. Severe abdominal pain 11. Accelerated/reduced fetal movement 22. Others (specify) 	
201.2	<p>In your opinion, what are some serious health problems that can occur during labour and child birth that could endanger the life of the woman?</p> <p>(multiple answer is possible)</p>	<ol style="list-style-type: none"> 1. Severe bleeding 2. Severe headache 3. Blurred vision 4. Convulsions 5. Labour lasting >12 hours 6. High fever 	

		<p>7. Loss of consciousness</p> <p>8. Retained placenta</p> <p>9. Don't know any</p> <p>22. Others (specify)</p>	
201.3	<p>In your opinion, what are some serious health problems that can occur during the first 2 days after birth that could endanger the life of the woman?(10)</p> <p>(multiple answer is possible)</p>	<p>1. Severe bleeding</p> <p>2. Severe headache</p> <p>3. Blurred vision</p> <p>4. . Convulsions</p> <p>5. Swollen hands/face</p> <p>6. High fever</p> <p>7. Loss of consciousness</p> <p>8. Difficulty breathing</p> <p>9. Severe weakness</p> <p>10. Malodorous vaginal discharge</p> <p>11.Don't know any</p> <p>22. Others (specify)</p>	

201.4	In your opinion, what are some serious health problems that can occur during the first 7 days after birth that could endanger the life of a newborn baby?(9) (multiple answer is possible)	1. Difficult or fast breathing 2. Yellow skin color (Jaundice) 3. Poor sucking/feeding 4. Pus, bleeding or discharge around umbilical cord 5. Baby very small 6. skin lesion or blisters 7. Convulsions/spasms/rigidity 8. Lethargy/unconscious 9. Red or swollen eyes with pus 10. Don't know any 22. Others (specify)	
202	In your opinion, could a woman die from (this problem) any of these problems?	1. Yes 2. No.	

203	Have you seen, heard or read any information related to birth preparedness in the past six months?	1. Yes 2. No.	Your Answer Choice 2 if so go to the ” Part 3 ”
203.1	From which source(s) did you	1. Hospital	

	see, hear, or read about birth Preparedness? (multiple answer is possible)	2. Health center 3. Relatives 4. Health extension workers 5. Radio, TV 22. Others (specify)	
--	--	---	--

Part 3: Husbands' practice during pregnancy and childbirth

301	Had you identified a skilled birth attendance for your wife'?	1. Yes 2. No
302	Had you identified a preferable birth place and attendant at birth?	1. Yes 2. No
303	Did you arrange a source of household support to provide temporary family care during her absence?	1. Yes 2. No
304	Had you identified means of transportation for your wife's?(in case of delivery and emergency)	1. Yes 2. No
305	Had you saved or arranged alternative funds for costs of skilled and emergency care?	1. Yes 2. No
306	Had you accompanied your wife to go to health facility?(during emergency care)	1. Yes 2. No
307	Had you planned to donate blood when	1. Yes 2. No

	complications happened?	
308	Had you prepared clean clothes & other materials for baby/mother's?	1. Yes 2. No

Section 4. Obstetric characteristics and health service utilization			
401	Parity of wife	_____	
402	Did your wife get ANC -----service during her pregnancy?	1. Yes 2. None	Your answer If choice 2 go to the Question "No.403"
402.1	How often did your wife get ANC service?	_____times	
403	Did you or your wife have made a plan of where to deliver?	1. Yes 2. No.	
403.1	Where did your wife give birth to the recent baby?	1. Hospital 2. Health center 3. Private clinic 4.Home	

		22. Others (specify)	
403.2	If home, why didn't your wife deliver in a health facility? (multiple answer is possible)	1. Cost too much 2. Facility not open 3. Too far 4. No transportation 5. Quality service 22. Others (specify)	
404	Having a discussion with spouse on the delivery?	1. yes 2. no	
405	Making postpartum plan following delivery?	1. yes 2. no	
406	What was your wife mode of delivery?	1. Spontaneous vaginal delivery 2. Caesarean Section 3. Instrumental delivery (Forceps, Vacuum Extractor)	
407	During previous pregnancy, did your wife experience any serious obstetric complication	1. yes 2. No.	Your answer If choice 2 go to the Question "No. 408 "

407.1	What problems did her experience? (multiple answer is possible)	1. Bleedings 2. Severe headache 3. Blurred vision 4. Convulsion 5. High fever 6. Loss of consciousness 22. Others (specify)	
407.2	Which one of these problems was the most severe? (multiple answer is possible)	1. Bleedings 2. Severe headache 3. Blurred vision 4. Convulsion 5. High fever 6. Loss of consciousness 22. Others (specify)	
408	How long did it take to reach the health facility?	_____ km	
409	What means of transport do you use to get to the health facility? (multiple answer is possible)	1. By foot 2. Public transport (Bus, tax and motorcycle) 3. Ambulance 4. Private vehicle 22. Others (specify)	
410	Are there any health service problems that you are facing that prevented you from going health facility?	1. Yes 2. No	Your answer If choice 2 go to the

			Question "No.411 "
410.1	What problems that may prevent or discourages you from going health facility? (multiple answer is possible)	<ol style="list-style-type: none"> 1. Distance to the health facility is too long 2. I heard the waiting time to get service is too long 3. I heard the health professionals approach is not good 4. Lack of money 5. Lack of transportation 6. lack of awareness 7. I heard their service is not good 8. Men is restricted not to enter into labour room 22. Others (specify) 	
411	How would you describe the service of the health facility during your wife delivered and afterwards?	<ol style="list-style-type: none"> 1. Very good 2. Good 3. Moderate 4. Bad 5. Very bad 	
412	What factor may make the health service bad/very bad? (multiple answer is possible)	<ol style="list-style-type: none"> 1.The waiting time is too long 2.There is no private room for examination 3. The waiting room is not good 4. The health care providers do not respect me 	

		22.Others(specify)_____	
413	Would you recommend or encourage other husbands to go with their wives to this health facility?	1. Yes 2. No	
414	Do you have any comments to improve the quality of services of the Health facility?	1. Yes 2. no	
415	Who makes the final decision of where your wife is to deliver?	1. Husband only 2.Wife's only 3. Both husband and wife 4.Otherspecify _____	
416	Are you as a man supposed to be involved in BP/CR?	1. Yes 2. No	
417	Are you registered in health insurance?	1. Yes 2. No.	

Thank you very much for letting me talks with you today!!!

Thank you for participation!!!

11.4 .Annex-IV: Respondents Information Sheet Amharic Version

ክፍል አንድ: የመረጃ ገጽ

መግቢያ

እራስሽ/ህ ን ለማስተዋወቅ ይህንን አንቀጽ አንብቢ/ብ!!

ስሜ ራሄል ይሄይስ ይባላል። የመጣሁት ከደብረብርሃን ዩኒቨርሲቲ ህክምና ሳይንስ ካምፓስ ሲሆን፣ አላማውም የባሎች ተሳትፎ በእርግዝና እና በወሊድ ጊዜ እና ባሎችም ተሳትፎ እንዲያደርጉ የሚያጋጥሟቸው ችግሮች ዙሪያ ላይ በሚሰራ ጥናት ውስጥ መረጃ ለመሰብሰብ ሲሆን ፣ ለዚህ ጥናት ይረዳ ዘንድ ጥያቄዎችን እጠይቀዎታለሁ ። ከዚህ ጥናት የሚገኙት መረጃዎች የሚውሉት ትምህርታና ትምህታዊ ለሆነ አላማ ብቻ ነው ። ስለሆነም ፣ ለዚህ ጥናት የሚሰጡት ማናቸውም መረጃ በሚስጥር ይያዛል፣ እንዲሁም ይህንን ቃለመጠይቅ ለማካሄድ ከ 20 ደቂቃ በላይ እንደማይወስድ ላረጋግጥልዎ እወዳለሁ ። ስለሆነም በዚህ ጥናት ላይ በፍቃደኝነት ይሳተፉ ዘንድ በትህትና እጠይቀዎታለሁ ።

መጠይቁን እንዲጀመር ፍቃደኛ ነዎት? አዎ ወደ መጠይቁ ያምሩ

አይደለሁም አቁም

ከጥናቱ ጋር በተያያዘ እንዲብራራልዎት የሚፈልጉት ወይንም ተያያዥ አስተያየት ካለዎት ከዚህ በታች በተጠቀሰው የዋና አጥኝው አድራሻ በመጠቀም ሃሳብዎን ማካፈል ይችላሉ ።

ስም: ራሄል ይሄይስ ስልክ ቁጥር: 0911441607

ኢሜይል: rahelyes@gmail.com

11.5. Annex-V: Informed consent in Amharic version

የስምምነት ማረጋገጫ

በዚህ ጥናት ውስጥ ከደብረ ብርሀን ዩኒቨርሲቲ በመጡ የመረጃ ሰብሳቢዎች ተጋብዦለሁ። ከላይ የተጠቀሱትን መረጃዎች አንቢቢያለሁ ወይም ተነቦልኛል። የተለያዩ ጥያቄዎችን ለመጠየቅም ሁኔታዎች ተመቻችቶልኝ ነበር፤ ለጥያቄዎቼም ተገቢ ምላሽ ተሰጥቶኛል ። ስለሆነም በዚህ ጥናት ላይ በፈቃደኝነት ለመሳተፍ ሙሉ ፍቃዴ ነው።

የተሳታፊው ፊርማ_____

ቀን____/____/_____

ማንበብና መጻፍ ለማይችሉ

የፍቃድ መስጫውን በተገቢው ሁኔታ ማንበቤን እመስክራለሁ እንዲሁም ግለሰቡ የተለያዩ ጥያቄዎችን ለመጠየቅ አጋጣሚዎችን ተመቻቸውለት ነበር። ከዚህ በታች ባለው ስሜ እና በፊርማዬ ተሳታፊው በመጠይቁ ላይ ለመሳተፍ ፈቃደኛ መሆናቸውን አረጋግጣለሁ።

የመስካሪው ስም_____ የመስካሪው ፊርማ_____ የተሳታፊዎ የጣት አሻራ



11.6. Annex –VI: Questionnaires in Amharic Version

የመጠይቁ መለያ ቁጥር

ቀን / /

የቀበሌውስም

የመረጃ ሰብሳቢው/ዋ ስም

ክፍል አንድ: አጠቃላይ የተጠያቂው መረጃ

ተ.ቁ	መጠይቅ	አማራጭ መልስ	ዝለል
101	የመኖሪያ አድራሻ	1. ከተማ 2. ገጠር	
102	እድሜ	_____ አመት	
103	ሃይማኖትህ ምንድን ነው?	1. ኦርቶዶክስ 2. ሙስሊም 3. ካቶሊክ 4. ፕሮቴስታንት 22. ሌላ ከሆነ ይጥቀሱ	
104	የትምህርት ደረጃህ?	1. አልተማርኩም 2. ማንበብና መጻፍ 3. አንደኛ ደረጃ 4. ሁለተኛ ደረጃ	

		<p>5. ዲፕሎማ</p> <p>6. ዲግሪ እና ከዚያ በላይ</p> <p>22. ሌላ ከሆነ ይጥቀሱ</p>	
105	የባለቤትህ የትምህርት ደረጃ?	<p>1. ያልተማረች</p> <p>2. ማንበብና መጻፍ</p> <p>3. አንደኛ ደረጃ</p> <p>4. ሁለተኛ ደረጃ</p> <p>5. ዲፕሎማ</p> <p>6. ዲግሪ እና ከዚያ በላይ</p> <p>22. ሌላ ከሆነ ይጥቀሱ</p>	
106	ብሄር	<p>1. ኦሮሞ</p> <p>2. አማራ</p> <p>3. ጉራጌ</p> <p>22. ሌላ ከሆነ ይጥቀሱ</p>	
107	ሥራህ ምንድን ነው?	<p>1. የመንግስት ሰራተኛ</p> <p>2. የግል ድርጅት ሰራተኛ</p> <p>3. ነጋዴ</p> <p>4. ገበሬ</p> <p>5. የቀን ሰራተኛ</p>	

		22. ሌላ ከሆነ ይጥቀሱ	
108	የባለቤት-ህሥራ ምንድን ነው?	1. የቤት እመቤት 2. የመንግስት ሰራተኛ 3. የግል ድርጅት ሰራተኛ 4. ነጋዴ 5. የቀን ሰራተኛ 22. ሌላ ከሆነ ይጥቀሱ	
109	በአሁኑ ጊዜ ስንት ሚስት አለህ?	የሚስቶቹ ብዛት_____	
110	የልጅህ ብዛት	የልጆቹ ብዛት_____	
111	የቤተሰብህ መጠን	የቤተሰብ ብዛት_____	
112	አማካይ ወርሃዊ ገቢዎ በብር ስንት ነው?	_____ብር	
113	በቤተሰብህ ውስጥ ገቢ ያለው ማነው?	1. ባል ብቻ 2. ሚስት ብቻ 3. ሁለቱም ባልና ሚስት	

ክፍል ሁለት: በእርግዝና ወቅት የሚያጋጥሙ ችግሮች እውቀት እና የመረጃ ምንጮች በተመለከተ የተዘጋጀ መጠይቅ

201	<p>ከእርግዝና ወይም ከወሊድ ጋር የተያያዙ ያልተጠበቁ የጤና ችግሮች አደጋ ላይ ሊጥሉ ይችላሉ?</p>	<ol style="list-style-type: none"> 1. አዎ 2. አይ 	<p>መልስዎ ምርጫ 2 ከሆነ ወደ ጥያቄ "ቁጥር 203" ያምሩ</p>
201.1	<p>በእርግዝና ወቅት ከሚያጋጥሙ የጤና ችግሮች የምታወቀውን ጥቀስ? (ከአንድ በላይ መልስ መስጠት ይቻላል)</p>	<ol style="list-style-type: none"> 1. የደም መፍሰስ 2. ከባድ ራስ ምታት 3. የደበዘዘ እይታ 4. መንቀጥቀጥ 5. እብጠት እጆች / ፊት 6. ከፍተኛ ትኩላት 7. የንቃተ ህሊና ማጣት 8. የመተንፈስ ችግር 9. ከባድ ድክመት 10. ከባድ የሆድ ህመም 11. ፈጣን/ በጣም ዝግ ያለ የፅንሰ እንቅስቃሴ 12. ምንም አላውቅም 22. ሌላ ከሆነ ጥቀስ _____ 	

201.2	<p>በወሊድ ወቅት ከሚያጋጥሙ የጤና ችግሮች የምታወቀውን ጥቀስ?</p> <p>(ከአንድ በላይ መልስ መስጠት ይቻላል)</p>	<ol style="list-style-type: none"> 1. ከባድ የደም መፍሰስ 2. ከባድ ራስ ምታት 3. የደበዘዘ እይታ 4. መንቀጥቀጥ 5. > 12 ሰዓታት በላይ የሚቆይ ምጥ 6. ከፍተኛ ትኩሳት 7. የንቃተህሊና ማጣት 8. የእንግዶልጅ ሳይወጣ መቅረት 9. ምንም አላውቅም 22. ሌላ ከሆነ ጥቀስ _____ 	
201.3	<p>ከወሊድ በኋላ ያሉት የመጀመሪያ ሁለት ቀናቶች ከሚያጋጥሙ የጤና ችግሮች የምታወቀውን ጥቀስ?</p> <p>(ከአንድ በላይ መልስ መስጠት ይቻላል)</p>	<ol style="list-style-type: none"> 1. ከባድ የደም መፍሰስ 2. ከባድ ራስ ምታት 3. የደበዘዘ እይታ 4. መንቀጥቀጥ 5. እብጠት እጆች / ፊት 6. ከፍተኛ ትኩሳት 7. የንቃተ ህሊና ማጣት 8. የመተንፈስ ችግር 9. ከባድ ድክመት 	

		<p>10. መጥፎ ከሴት-ብልት-የሚወጣ ፈሳሽ</p> <p>11. ምንም አላውቅም</p> <p>22. ሌላ ከሆነ ጥቀስ _____</p>	
201.4	<p>አዲስ የተወለደ ሕፃን ልጅ ሕይወት ላይ አደጋ ሊጥል የሚችል ከወሊድ በኋላ ባሉት 7 ቀናት ውስጥ ሊከሰቱ የሚችሉ አንዳንድ ከባድ የጤና ችግሮች ምንምን ናቸው?</p> <p>(ከአንድ በላይ መልስ መስጠት ይቻላል)</p>	<p>1. አስቸጋሪ ወይም ፈጣን አተነፋፈስ</p> <p>2. የሰውነት ቆዳ ቀለም ቢጫ መሆን</p> <p>3. ጡት ያለመጥባት / ያለመመገብ</p> <p>4. እምብርት አካባቢ ደም ወይም መግል መፍሰስ</p> <p>5. በጣም ትንሽ ሕፃን መሆን</p> <p>6. የቆዳ ቁስለት</p> <p>7. መንቀጥቀጥ / ግትርማለት</p> <p>8. መደካከም/አራስንመሳት</p> <p>9. የአይን መቅላት ወይም ማበጥ ወይም መግል መያዝ</p> <p>10. ምንም አላውቅም</p> <p>22. ሌላ ከሆነ ጥቀስ _____</p>	
202	<p>ከላይ የጠቀስከው ምክንያቶች እናቶችን ለሞት ይዳርጋሉ?</p>	<p>1. አዎ</p> <p>2. አይደለም</p>	

203	ስለ ቅድመ ወሊድ ዝግጁነት ባለፉት 6 ወራት ስምተው አይተው ወይም አንብበው ያወቃሉ?	1. አዎ 2. አይደለም	መልስዎ ምርጫ2 ከሆነ ወደ "ክፍል 3" ያምሩ
203.1	ከየትኛው መረጃ ምንጭ ስለ ቅድመ ወሊድ ዝግጁነት የሰሙ፣ ያዩትና ያነበቡት? (ከአንድ በላይ መልስ መስጠት ይቻላል)	1. ሆስፒታል 2. ጤና ጣቢያ 3. ዘመዶች 4. የጤና ኤክስቴንሽን ሰራተኞች 5. ሬዲዮ፣ ቲቪ 22. ሌላ ከሆነ ጥቀስ _____	

ክፍል 3: በእርግዝና እና በወሊድ ጊዜ የባሎች ተሳትፎ/ልምድ(practice)

301	ባለቤትህ በሰለጠኑ አዋላጆች እንድትወልድ አቅደህ ነበር?	1. አዎ 2. አይ
302	ባለቤትህ የት እንደምትወልድ አቅደህ ነበር?	1. አዎ 2. አይ
303	ባለቤትህ ቤት ውስጥ በማትኖርበት ጊዜ ጊዜያዊ የቤተሰብ እንክብካቤ የሚያደርግላት ወይም በቤት ውስጥ የሚያግዛት አዘጋጅተህላት ነበር?	1. አዎ 2. አይ

304	ለባለቤት ለወሊድ ወይም ለድንገተኛ ጊዜ የሚሆን የትራንስፖርት መጓጓዣ መንገዶች አዘጋጅተህላት ነበር?	1. አዎ	2. አይ
305	ባለቤት ለእርግዝናዎ ጊዜ ለወሊድ ወይም ለድንገተኛ ጊዜ የሚሆን ገንዘብ ቆጥቦህ ነበር?	1. አዎ	2. አይ
306	ባለቤት ወደ ጤና ተቋም በምትሄድበት ጊዜ አብረህ ትሄድ ነበር?	1. አዎ	2. አይ
307	ውስብስብ የጤና ችግሮች ቢከሰቱ ደም ለመለገስ አቅደህ ነበር?	1. አዎ	2. አይ
308	ለሚወለደው ሕፃን/ለእናት የው ገጹ ህልብሶችን እና ሌሎች ቁሳቁሶችን አዘጋጅተህ ነበር?	1. አዎ	2. አይ

ክፍል 4. የእናቶች ወሊድና ጤና አገልግሎቱን በተመለከተ የተዘጋጁ ጥያቄዎች			
401	ባለቤት ስንተኛ ግዜዎ ነው ስትወልድ?	_____	
402	ባለቤት ይህን/ችን ህፃን ነፍስ ጡር እያሉ በጤና ተቋም የቅድመ ወሊድ ክትትል አድርገዉ ነበር?	1. አዎ 2. የለም	መልስዎ ምርጫ2 ከሆነ ወደ ጥያቄ"ቁጥር 403" ያምሩ

402.1	ባለቤትዎ ምን ያህል ጊዜ የቅድመ ወሊድ ክትትል አድርገው ነበር?	_____ ጊዜ	
403	አንተ ወይም ባለቤትህ በጤና ተቁዋም የመወለድ እቅድ ነበራችሁ?	1. አዎ 2. አይ	
403.1	በቅርቡ ከዚህ በፊት የት ነው የወለደችው?	1. ሆስፒታል 2. በጤና ተቁዋም 3. የግል ክሊኒክ 4. ቤት 22. ሌላ ከሆነ ጥቀስ _____	
403.2	ቤት የወለደች ከሆነ ምክንያቱ ምንድን ነው? (ከአንድ በላይ መልስ መስጠት ይቻላል)	1. ክፍያ ስለተወደደ 2. ጤና ተቁዋሙ ዝግ ስለሆነ 3. ጤና ተቁዋሙ በጣም እሩቅ ስለሆነ 4. ትራንስፖርት ስላጣሁ 5. አገልግሎቱ ጥራት ስለሌለው 6. ባሌ ስላልፈቀደ 22. ሌላ ከሆነ ጥቀስ _____	
404	በወሊድ ጉዳይ ላይ ከትዳር ንደኛህ ጋር ውይይት ታደርግ ነበር?	1. አዎ 2. አይ	

405	ከወሊድ በኋላ እቅድ ታወጣ ነበር?	1. አዎ 2. አይ	
406	ባለቤትህ ህፃኑ/ኗ እንዴት ነበር የተወለድኛው/ቻት?	1. በብልት በኩል 2. በቀዶ ጥገና 3. በመሳርያ (ፎርሴፕሽን, ቫኩዩም ኢክስትራክተር)	
407	ከዚህ እርግዝና ጋር በተያያዘ የጤና ችግር አጋጥሟት ያወቃል?	1. አዎ 2. አይ	መልስዎ ምርጫ2 ከሆነ ወደ ጥያቄ”ቁጥር 408” ያምሩ
407.1	ምን አይነት የጤና ችግር አጋጥሟት ነበር? (ከአንድ በላይ መልስ መስጠት ይቻላል)	1. የደም መፍሰስ 2. ከፍተኛ ራስ ምታት 3. ብዝታ 4. መንቀጥቀጥ 5. ከፍተኛ ትኩሳት 6. ራስን መሳት 22. ሌላ ከሆነ ጥቀስ _____	
407.2	ከላይ ከጠቀሱት ችግሮች የትኛው ነው የበለጠ ከባድ? (ከአንድ በላይ መልስ መስጠት ይቻላል)	1. የደም መፍሰስ 2. ከፍተኛ ራስ ምታት	

		<p>3. ብዝታ</p> <p>4. መንቀጥቀጥ</p> <p>5. ከፍተኛ ትኩሳት</p> <p>6. ራስን መሳት</p> <p>22. ሌላ ከሆነ ጥቀስ _____</p>	
408	<p>ጤና አገልግሎት የሚሰጥበት በአቅራቢያህ የሚገኝ የጤና ተቋም ከመኖሪያ ቤትህ ያለው ርቀት?</p>	_____ ኪ.ሜ	
409	<p>ወደ ጤና ተቋም ለመሄድ ምን አይነት መጓጓዣ ትጠቀማለህ? (ከአንድ በላይ መልስ መስጠት ይቻላል)</p>	<p>1. በእግር</p> <p>2. የህዝብ ማመላለሻ (አውቶቡስ ፣ ታክሲ እና ሞተር ሳይክል)</p> <p>3. አምቡላንስ</p> <p>4. የግል መኪና</p> <p>22. ሌላ ከሆነ ጥቀስ _____</p>	
410	<p>ወደ ጤና ተቋም እንዳይሄዱ ያደረጉ የጤና አገልግሎት ችግሮች አሉ?</p>	<p>1. አዎ 2. አይ</p>	<p>መልስዎ</p> <p>ምርጫ2</p> <p>ከሆነ ወደ</p> <p>ጥያቄ”ቁጥር</p> <p>411” ያምሩ.</p>

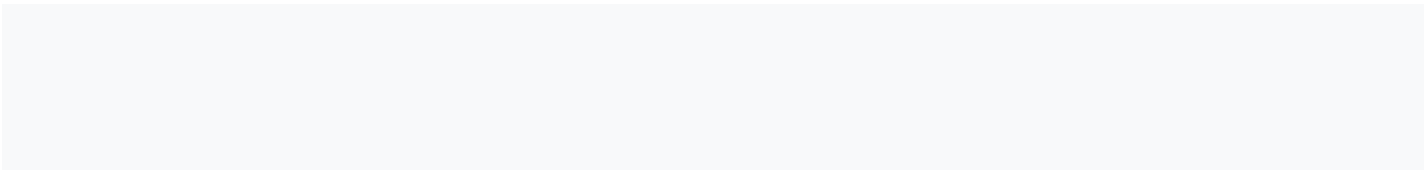
410.1	<p>ወደ ጤና ተቋም እንዳትሄድ የሚከለክሉ ወይም የሚያደናቅፉ ምን ችግሮች ናቸው?</p> <p>(ከአንድ በላይ መልስ መስጠት ይቻላል)</p>	<ol style="list-style-type: none"> 1. የጤና ተቋሙ ያለው ርቀት በጣም ረጅም ነው 2. አገልግሎት ለማግኘት የሚወስደው ጊዜ በጣም ረጅም እንደሆነ ሰምቻለሁ 3. የጤና ባለሙያዎች አቀራረብ ጥሩ እንዳልሆነ ሰምቻለሁ 4. የገንዘብ እጥረት 5. የመጓጓዣ እጥረት 6. የግንዛቤ እጥረት 7. አገልግሎታቸው ጥሩ እንዳልሆነ ሰምቻለሁ 8. ወንዶች ወደ ማዋለጃ ክፍል እንዳይገቡ የተከለከለ ነው 22. ሌላ ከሆነ ጥቀስ _____ 	
411	<p>ሚስትህ በምትወልድበት ጊዜ እና ከወለደች በኋላ ያለውን የጤና ተቋሙ አገልግሎት እንዴት ይገልጹታል?</p>	<ol style="list-style-type: none"> 1. በጣም ጥሩ 2. ጥሩ 3. መጠነኛ 4. መጥፎ 5. በጣም መጥፎ 	
412	<p>የጤና አገልግሎቱን ጥሩ የማይደርገው</p>	<ol style="list-style-type: none"> 1. የጥበቃ ጊዜ በጣም ረጅም 	

	<p>በምን ምክንያት ነው? (ከአንድ በላይ መልስ መስጠት ይቻላል)</p>	<p>ነው።</p> <p>2. ለምርመራ ምንም የተለየ ክፍል የለም</p> <p>3. የመጠባበቂያ ክፍል ጥሩ አይደለም</p> <p>4. የጤና አገልግሎት አቅራቢዎች አያከብሩኝም</p> <p>22. ሌላ ከሆነ ጥቀስ _____</p>	
413	<p>ሌሎች ባሎች ከሚስቶቻቸው ጋር ወደዚህ የጤና ተቋም እንዲሄዱ ትመክራለህ ወይም ታበረታታለህ?</p>	<p>1. አዎ 2. አይ</p>	
414	<p>የጤና ተቋሙን አገልግሎት ጥራት ለማሻሻል አስተያየት አልዎት?</p>	<p>1. አዎ</p> <p>2. አይ</p>	
415	<p>ሚስትህ የት እንደምትወልድ የመጨረሻ ውሳኔ የሚሰጠው ማነው?</p>	<p>1. ባል ብቻ</p> <p>2. ሚስት ብቻ</p> <p>3. ሁለቱም ባልና ሚስት</p> <p>22. ሌላ ከሆነ ጥቀስ _____</p>	
416	<p>እርስዎ በ እርግዝና እና በወሊድ ጊዜ ተሳታፊ ሰው ነዎት?</p>	<p>1. አዎ 2. አይ</p>	

417	የጤና መድሀን ተመዝግቦሃል?	1. አዎ 2. አይ	
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ዛሬ ከእርስዎ ጋር እንድንጋገር ስለፈቀዱልኝ በጣም አመሰግናለሁ !!!

ስለ ተሳትፎ እናመሰግናለን።



Declaration

I, the undersigned, do here by declare that the work entitled “Assesment of husband involvement in birth prepardness-complication readiness and Associated factors among husbands in Siyadebrnawayu woreda, North shoa zone, Amhara region, Ethiopia, 2022 ’’ presented in this research Thesis is original. It has not been presented to any other university or institution. Where, the work of other people has been used, reference has been provided. In this regard, I declare this work to be our unique work.

Declared By

<u>Rahel yeheyes</u>	_____	<u>November, 2022</u>	<u>DebreBerhan,Ethiopia</u>
Student	Signature	Date	Place

