



ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

THE ASSOCIATION OF INTIMATE PARTNER VIOLENCE DURING PREGNANCY AND SPONTANEOUS ABORTION IN ADIGRAT GENERAL HOSPITAL, TIGRAY REGION, NORTHERN ETHIOPIA.

BY: HELEN TEWELDEBRHAN (BSC)

ADVISOR: DR WUBEGZIER MEKONNEN (B.SC, MA, Ph.D.)

Dr. SOLOMON EMYU (MD, MPH)

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BY:

HELEN TEWELDEBRHAN (BSC)

Approved by the Examining Board

Advisors: 1. DR WUBEGZIER MEKONNEN (BSC, MA, PhD.)

Date: January 15, 2021 Signature: _____

2. Dr. SOLOMON EMYU (MD, MPH)

Date: January 15, 2021 Signature: _____

External Examiner: Dr. AMANUEL ABAJOBIR (BSC, MPH, PhD)

Date: January 15, 2021 Signature _____

Internal Examiner: MESELECH ASSEGID (MPH, PhD candidate)

Date: January 15, 2021 Signature _____

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ABBREVIATIONS AND ACRONYMS

AAU - Addis Ababa University

AOR - Adjusted odds Ratio

ANC- Antenatal care

CDC - US Central Diseases Prevention and Control

CI - Confidence Interval

COR - Crude odds Ratio

DM- Diabetes- mellitus

EDHS - Ethiopian Demographic and Health Survey

ETB - Ethiopian Birr

FMOH - Federal Ministry of Health

HTN- Hypertension

IPV - Intimate Partner Violence

IERB - Institutional Ethical Review Board

LNMP -Last normal menstrual period

MCH- Maternal and child health

PI - Principal Investigator

SDG - Sustainable Development Goal

WHO - World Health Organization

YLLS - Years of life lost

Abstract

Background: intimate partner violence-affected 30% of women in their lifetime globally. In Ethiopia, according to the Ethiopia Demographic and Health Survey 2016 report, the prevalence of intimate partner violence among ever-married women was 34% that varies across regions (between 9% in Somali and 38% in Oromiya regions). Several studies showed that women who experienced intimate partner violence had a high risk of spontaneous abortion than women who didn't experience intimate partner violence.

Objectives: To measure the association of intimate partner violence during pregnancy and spontaneous abortion among those who attended maternal health service in Adigrat general hospital, from July 2019 to June 2020, Tigray region, Ethiopia.

Methods: Explanatory sequential mixed-method study design was used. Systematic probability sampling and convenience nonprobability sampling was used to select study participants for the quantitative and qualitative approach. Bivariate and multivariate logistic analyses were performed to identify the association between intimate partner violence and spontaneous abortion. Muticollinary test was performed to test collinearity between independent variables. For the qualitative approach data were analyzed using thematic analysis.

Result: women who were exposed to intimate partner violence during pregnancy had 4 times higher odds of spontaneous abortion than mother who don't expose to any form of intimate partner violence (AOR 4.65, 95% CI 1.94-11.14). Women who were exposed to physical intimate partner violence during pregnancy had 3 times higher odds of spontaneous abortion compared to those who didn't expose to physical intimate partner violence (AOR 3.06, 95% CI 1.09-8.59). However emotional and sexual intimate partner violence doesn't have a significant association with spontaneous abortion. From the qualitative approach study participants believed that physical beating and stress had a relationship with spontaneous abortion.

Conclusion: This study shows that spontaneous abortion is significant associated with exposure to any form of intimate partner violence and physical intimate partner violence during pregnancy. We could prevent spontaneous abortion-related to intimate partner violence by Health care providers' identifying and counsel mothers about intimate partner violence when assessing spontaneous abortion patients.

1. INTRODUCTION

1.1 Background

Intimate partner violence (IPV) is defined as exposure to physical, emotional, and sexual violence by a current or former partner or spouse(1, 2).

Intimate partner violence is measured by whether the mother had experienced any of the following from her current or former partner or spouse: Physical intimate partner violence such as being slapped, being hit, being kicked, or being threatened); Emotional intimate partner violence such as insulting, have been scared, or have been threatened); and Sexual intimate partner violence such as being physically forced to have sexual intercourse, having sexual intercourse because she was afraid, or being forced to do something sexual)(1).

With regards to abortion, there is no universal definition of the term; for example, some countries define abortion as the termination of pregnancy before 20 weeks of gestational age. The World Health Organization (WHO) defines abortion for developing countries as the termination of a pregnancy before fetal viability, which is conventionally taken to be less than 28 weeks from the last normal menstrual period (LNMP). On the other hand spontaneous abortion (miscarriage) is defined as the loss of a pregnancy without outside intervention before 28 weeks gestational age from the last normal menstrual period (LNMP)(3). Spontaneous abortion can be subdivided into threatened abortion, inevitable abortion, incomplete abortion, missed abortion, septic abortion, complete abortion, and recurrent spontaneous abortion(4).

Spontaneous abortion is the most common pregnancy complication that occurs in about 10-15 % of all confirmed and suspected pregnancies (5). More than 80 percent of spontaneous abortions have occurred in the first 12 weeks of gestational age. About half of the cause of spontaneous abortion is chromosomal anomalies. The others cause of spontaneous abortion is maternal age, parity, previous history of abortion, maternal infections, alcohol consumption during pregnancy, and trauma(4).

Victims of Intimate partner violence during pregnancy suffer significant negative maternal and fetal health consequences because of the physical, sexual, and emotional abuse they have experienced. Several studies showed that IPV during pregnancy has an association with preterm

birth, low birth weight, spontaneous abortion, induced abortion, neonatal death, stillbirth, risk of acquiring sexually transmitted diseases (STI), and poor health service utilization(1).

Globally and nationally there is an increased emphasis on the prevention of violence against women in the past decades, and intimate partner violence is considered as part of it. Different policies and programs had been developed concerning this. Among them is a convention on the elimination of all forms of discrimination against women adopted in 1979, the declaration to the elimination of violence against women in 1993, starting of WHO working on gender-based violence from 1996 (5), and WHO also develop preventing intimate partner and sexual violence against women in 2010(6). The current SDG target 5.2 also had a goal to eliminate all forms of violence against all women and girls (7). Our country Ethiopia also increased the focus on preventing and protecting women against intimate partner violence in the last decades by undertaking gender-sensitive legislative forms. Examples of those are; the 2005 revised criminal code Article 564 prohibited Violence against a Marriage Partner or a Person Cohabiting in an Irregular Union, and the 2003 revised family law(8, 9).

1.2 Statement of the problem

In 2017, WHO reported globally approximately 7% of maternal mortality and 8.9% of years of life lost (YLLs) are due to abortion. In Sub-Saharan, Africa abortion accounted for 9.6% of maternal mortality(10). According to a systematic review carried out in Ethiopia by 2016, Abortion is the 4th cause of maternal mortality from 1990-2016 (11). Globally about 8.9% of hospital admissions to have nearly missed morbidity are estimated due to abortion-related(10). A study conducted in Ethiopia, Addis Ababa also showed that 4% of maternal near-miss cases were due to abortion(12).

Even though the greater portion of cause maternal mortality and morbidity is due to unsafe abortion, spontaneous abortion has still a contribution to it. Spontaneous abortion also has several complications; those are hemorrhage, sepsis, injury to the genitals and internal organs, high risk of ectopic pregnancy, and secondary infertility(3)

IPV is a global public health problem and a violation of basic human rights. It affected 30% of women in their lifetime globally. Africa is one of the nations that have the highest IPV that is 36.6%(5). In Ethiopia, according to the EDHS 2016 report, the prevalence of intimate partner violence among ever-married women was 34% that varies from region to region (Ethio-Somali region 9% and 38% in Oromya region)(13).

A study conducted in Cameron showed that women who are exposed to IPV have 50% more likely to experience spontaneous fetal loss (14). Several studies conducted in Tanzania and Zimbabwe also supported that women who experienced intimate partner violence had a high risk of spontaneous abortion than women who don't experience intimate partner violence (15, 16). However, studies conducted in Ghana and India indicated that women who were exposed to IPV do not have a significant association with early pregnancy loss (17, 18).

Several factors have been found as risk factors for spontaneous abortion. Studies conducted across the world have found those following as risk factors for spontaneous abortion; maternal age, low socioeconomic status, parity, gestational age, birth interval, previous history of abortion, chronic diseases, maternal nutritional status, smoking, alcohol consumption during pregnancy, and violence during pregnancy.

Studies had been showing the mechanism of action of intimate partner violence and spontaneous abortion may have a direct pathway or an indirect pathway. Physical violence has a direct effect due to direct trauma to the abdomen that can cause bleeding and spontaneous abortion. Physical, sexual, and emotional intimate partner violence can indirectly affect pregnancy due to stress and emotional trauma that decreases the immune system, having a higher risk of developing a chronic disease like hypertension (HTN), and Diabetes mellitus (DM). Stress during pregnancy may raise cortisol levels that lead to constriction of the blood vessels and limiting blood flow to the uterus. Furthermore, the hypothalamic-pituitary-adrenal response can lead to contractions of the smooth muscle tissue in the uterus. And women who are exposed to IPV have low utilization of health services(5).

In Ethiopia, different health policies, strategies, and interventions have been implemented to reduce maternal mortality and morbidity. Using those strategies Ethiopia had a plan on decreasing maternal mortality from 412 to 199 in 2020(19). Abortion is the top 5 cause of maternal mortality that accounts for 8.6%. Though unsafe abortion has a higher portion, spontaneous also had contributed. As a result, exposure to intimate partner violence during pregnancy might contribute to the high magnitude of spontaneous abortion. Consequently, due to the high magnitude of abortion maternal mortality and morbidity will become high.

However, researches show an association between intimate partner violence during pregnancy and spontaneous abortion are mainly cross-sectional studies. That has a limitation on showing temporal relationships effect. The exposure to intimate partner violence is also measured by lifetime exposure or one-year exposure to IPV. That had a lack of strong evidence on showing spontaneous abortion is attributable to IPV during pregnancy. To the best of the researchers' knowledge, no facility-based study has been conducted to assess the association of intimate partner violence during pregnancy and spontaneous abortion in Ethiopia.

Therefore, this study was intended to contribute to bridging the knowledge gap, and subsequently the proportionate effect of intimate partner violence during pregnancy on spontaneous abortion.

1.3 Rationale of the study

Abortion is a global and national public health problem, which is one cause of maternal morbidity and mortality. More than half the cause of spontaneous abortion accounted for chromosomal abnormally but numerous factors can be a risk factor for spontaneous abortion. One of them is intimate partner violence during pregnancy. The prevalence of intimate partner violence during pregnancy in Ethiopia is ranged between 3% from 2016 EDH to 27% from a systematic review done in 2018(13, 20). The previously conducted study revealed an association between IPV and spontaneous abortion most of which are cross-sectional studies.

To the best of the researchers' knowledge, no facility-based study has been conducted to assess the association of intimate partner violence during pregnancy and spontaneous abortion in Ethiopia. Therefore, this study was intended to contribute to the knowledge gap, and subsequently the proportionate effect of intimate partner violence during pregnancy on spontaneous abortion.

1.4 Significant of the study

Ethiopia is planning to decrease maternal mortality from 412 to 199 in 2020(19). One of the preventive strategies is decreasing the causes of mortality among which abortion is one. Therefore, this study will have a contribution to showing intimate partner violence during pregnancy and other risk factors for spontaneous abortion and to contribute to the prevention mechanisms.

This study will also help policymakers in designing context-specific appropriate strategies for preventing spontaneous abortion and addressing intimate partner violence during pregnancy and other risk factors of spontaneous abortion. Moreover, this study will help researchers and the scientific community in updating their knowledge on the effect of intimate partner violence on spontaneous abortion in Adigrat general hospital. Finally, this study will also serve as baseline information for further research.

2. LITERATURE REVIEW

2.1 Types and trends of Intimate partner violence during pregnancy

Intimate partner violence is a major public health problem and a violation of human rights globally. About one-third of women have experienced IPV during their lifetime globally and 36.6% in Africa(5). According to a WHO report in 2013 physical intimate partner violence during pregnancy ranges between 1% in Japan city to 28% in Peru province. The study also revealed that the majority of women believed that man has a right to beat his wife under certain circumstances. Some of those circumstances are not completing housework adequately, refusing sex, disobeying her husband, and being unfaithful(1). The belief of man has a right to beat his wife is most common in Africa and South Asia, and least common in Central and Eastern Europe, Latin America, and the Caribbean(21).

A systematic review and meta-analysis among African countries in 2010 also showed that IPV during pregnancy ranges from 2% - 57%, with meta-analysis yielding an overall prevalence of 15.23%. That emotional violence is the commonest IPV during pregnancy that ranges from 24.8% to 49%, then physical violence range from 22.5% to 40%, and sexual violence from 2.7%- 26.5%(22).

Ethiopia is one of the countries that have high IPV prevalence countries. According to a systematic review and meta-analysis were done in 2018 intimate partner violence against pregnant mothers is prevalent at 26.1%. That is highest in the Amhara and Oromia regions. In this study also emotional violence is the commonest IPV during pregnancy accounted for 21% followed by physical violence at 16% and sexual violence at 12% (20). Intimate partner violence during pregnancy in Tigray region ranges from 20.6% - 40.8%(23, 24). It can be argued that the same belief and trend is highly prevented in most parts of the country. Though empirical studies are needed to be conducted to prove the argument, other parts of Ethiopia, mainly Oromia and the south could be worse in terms of the prevalence of intimate partner violence during pregnancy.

2.2 Spontaneous abortion trends

The accurate rate of spontaneous abortion is difficult to estimate. Studies of spontaneous abortion in low-income and middle-income countries face additional challenges. Most spontaneous abortion occurs without any contact with the formal healthcare system and is not registered. Studies estimated the incidence of spontaneous abortion about 10-15 % of all confirmed and suspected pregnancies. However, the incidence of spontaneous abortion varies from nation to nation due to access to health care services and socio-demographic factors (3).

Spontaneous abortion is a very common pregnancy complication. That many mothers experience a miscarriage in their lifetime. Studies showed that the incidence of spontaneous abortion in North America ranges from 9.1% in 8 states of America to 17.3% in Boston and from 4.6% in India- 7.45% in China (25-28). Spontaneous abortion in Africa also has a high incidence that ranges from 4.2% in rural Bangladesh to 18.9% in Kenya (29, 30). In Ethiopia, the incidence of a spontaneous abortion ranges from 10.9% in northwest Ethiopia to 13% in the Tigray region(31, 32). Similar could be said for the other parts of the country.

2.3 The association between IPV during pregnancy and spontaneous abortion

According to the WHO 2013 report women who were exposed to IPV had 1.4 increased odds of spontaneous abortion compared to those who don't have exposed to IPV(1). Many studies support that women who are exposed to IPV during pregnancy had a high risk of spontaneous abortion than those who don't expose to IPV during pregnancy (33-35).

A cross-sectional study conducted in Cameroon showed that exposure to any type of IPV increased the risk of any fetal loss by about 50%. This study revealed that women who were exposed to any IPV had a higher risk of recurrent spontaneous abortion than those who don't expose to any IPV. And women exposed to a sexual form of IPV had 1.6 increased odds of spontaneous abortion than those who don't expose to sexual IPV(14).

Many studies conducted globally support that physical IPV during pregnancy had a higher risk of spontaneous abortion. A health facility-based cross-sectional study conducted in Germany showed that women who experienced physical IPV had 8.3 times the risk of spontaneous abortion compared to women who don't experience any physical IPV during pregnancy (36).

However, a longitudinal study conducted in India showed that women who were exposed to physical IPV had a 1.56 higher risk of spontaneous abortion. However, the association is not statistically significant, after adjusted maternal age, spousal age difference, and parity in women living in India(18). This study is also supported by studies done in Ghana and Congo (17).

According to cross-sectional studies conducted in Pakistan and Congo women who were exposed to an emotional form of IPV had a higher risk of having a spontaneous abortion than those who do not expose to an emotional form of IPV(37, 38). However, at the same time, health facility-based cross-sectional studies conducted in Zimbabwe and Ghana showed that the emotional form of IPV does not have a significant association with spontaneous abortion (16, 39).

A cross-sectional study conducted in Zimbabwe showed that Women who were exposed to at least two types of IPV had a 2.05 odds higher frequency of fetal loss than did those who were victims of only one type of violence (16). However, a study conducted in Tanzania showed that Women who are exposed to at least two types of IPV don't have a significant association with spontaneous abortion (15). However, there are no many empirical studies that have been conducted in Ethiopia regarding the matter.

2.4 Other factors associated with spontaneous abortion

2.4.1 Socio-demographic factors

Many studies conducted globally showed that the risk of miscarriage is increased when maternal age is increased, especially after the age of 30- 35 (40). A community-based case-control study conducted in Debre Tabor town, Northwest Ethiopia in 2018 also showed that advanced maternal age had a significant association with adverse pregnancy outcomes, one of which is spontaneous abortion (41). According to a cross-section study conducted in turkey, maternal education level had a positive association with spontaneous abortion. Women who attend less than high school had two times odd to have a spontaneous abortion. This study also revealed that non-married Women had 3.12 increased odds of miscarriage compared to married women(42). According to a community-based prospective cohort study in rural western Kenya in 2016, women who miscarried being generally poorer than those with other pregnancy outcomes (30). This finding is in line with the Ghanaian study in which women with higher economic decision-making autonomy were less likely to have a pregnancy loss(39).

2.4.2 Medical factors

According to a systematic review and meta-analysis were done in 2016, women who were obese, overweight, and underweight had a 2.01 times higher risk of miscarriage than those who were normal weight(43). That aligns with the previous study that women who are obese had a higher risk of had miscarriage (44).

Published results of studies examining the association between hypertension and spontaneous abortion risk have been conflicting. A cohort study conducted in China showed that women who had hypertension before pregnancy had 2.27 times the risk of miscarriage compared to women who don't have hypertension (28). However, at the same time cohort study conducted in London showed there is no association between chronic HTN and spontaneous abortion(45).

A hospital-based cohort study conducted in the UK found that women who had a history of type-2 DM had a 2.31 times higher risk of miscarriage compared to women who don't have any history of type-2 DM (46). This implies that the causes and consequences of miscarriage and other related factors differ from country to country because of differences in culture, economic level, social acceptance, and other variables.

2.4.3 Risky behaviors factors

Several studies showed that alcohol consumption during pregnancy can have a higher risk of miscarriage. A cross-sectional study conducted in Ghana in 2017 also had a similar finding that women who drink alcohol had 2.89 odds of miscarriage than those who don't drink alcohol (39). A case-control study conducted in Denmark found that cigarette smoking and caffeine intake during pregnancy can have a high risk of spontaneous abortion(47).

2.4.4 Maternal reproductive health factors

Several studies have been showing that the risk of spontaneous abortion increased as the number of live birth increased (parity) and the inter-pregnancies interval decreased. An observational population-based study conducted in Matlab, Bangladesh showed that Women whose inter-pregnancies interval is 6–14 months had 1.8 times increased odds of miscarriage than women with > 2 years inter-pregnancy interval (48). A population-based cross-sectional study in Turkey

found that Women who had more than two live-born children had 2.37 higher odds of miscarriage compared to women who had less than or equal to two live-born children(42).

A cohort study in Jerusalem, Israel, and Norway showed that women who had a previous history of miscarriage, CS delivery, ectopic pregnancy, and stillbirth had a higher risk of miscarriage than those who don't have a history of miscarriage, CS delivery, ectopic pregnancy and stillbirth (49, 50). At the same time cohort study conducted in the UK (2013) also found no significant association between the previous history of miscarriage or stillbirth with current spontaneous abortion (46).

Published results of studies examining the association between IPV and spontaneous abortion have been conflicting. Most studies showed that there a significant association between IPV and spontaneous abortion. However, studies conducted in Ghana and India showed that there is no significant association between IPV and spontaneous abortion.

When we see all those, the studies show an association between intimate partner violence and spontaneous abortion are mainly cross-sectional design. That has the limitation of showing cause and effect relationships. Those researches were measured exposure of intimate partner violence using one year or lifetime exposure to IPV. Therefore, this study addresses the limitation of prior studies by using case-control design and direct measure of intimate partner violence during pregnancy within the current pregnancy index.

2.5 Conceptual framework

The conceptual framework to assess the association of IPV and spontaneous abortion is adapted and modified from WHO global regional and national estimate of violence against women(5). The interaction between the main outcome variable is spontaneous abortion and the main exposure variable is IPV during pregnancy (physical, emotional, and sexual violence). And all the other factors were controlled to see the association between these two variables. Those other factors are Socio-demographic factors, maternal reproductive factors, Medical factors, and risky behavioral factors.

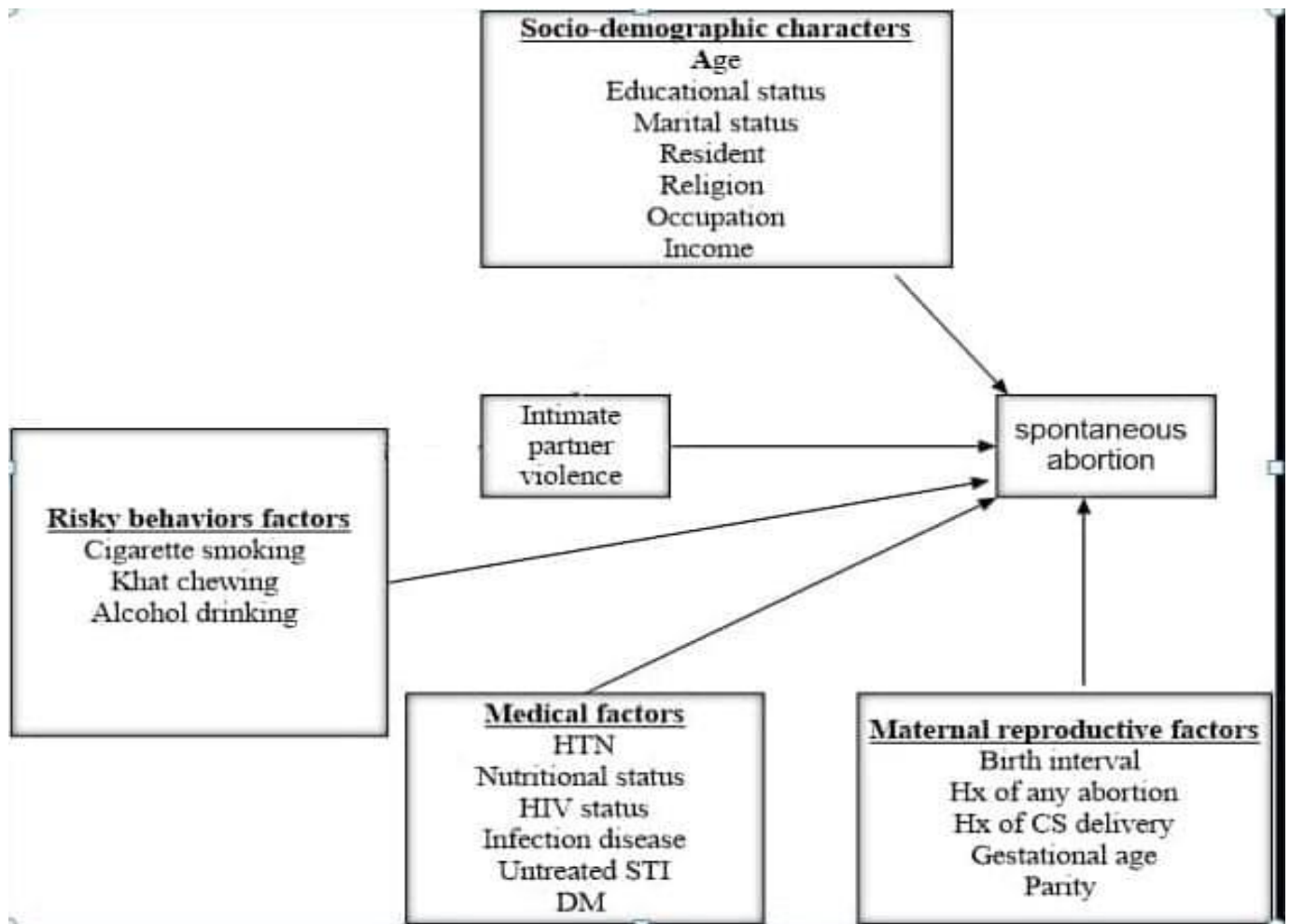


Figure 1: a conceptual framework of IPV and spontaneous abortion adopted and modified from WHO: a global regional and national estimate of violence against women, 2012

2.6 Research question and hypothesis

2.6.1 Research question

Does intimate partner violence during pregnancy have a significant association with spontaneous abortion?

2.6.2 Hypothesis

There is a significant association between intimate partner violence during pregnancy and spontaneous abortion.

OBJECTIVE OF THE STUDY

3.1 General Objective:

To assess the association of intimate partner violence during pregnancy and spontaneous abortion among women who attended maternal health service in Adigrat general hospital, from March to Jun 2020, Tigray region, Ethiopia.

3.2 Specific Objectives:

1. To measure the association between intimate partner violence during pregnancy and spontaneous abortion.
2. To explore the perceptions of mothers towards intimate partner violence and their understanding of avoiding spontaneous abortion.
3. To explore the experience of health care professions towards the management of spontaneous abortion-related to intimated partner violence.

3. METHODS AND MATERIALS

4.1 Study Setting and Study Period

The study was conducted in Adigrat general hospital that is located in Adigrat town administration, from March 13, 2020, to Jun 5, 2020. Adigrat town is found in the eastern zone of the Tigray region, which is located about 903-kilo meters to the north of Addis Ababa capital city of Ethiopia, and 120-kilo meters away from the regional capital city Mekelle. Adigrat general hospital is a government-owned general hospital and teaching center for Adigrat University. It also serves as a referral for surrounding catchment areas in the eastern zone of the Tigray region with about 142,765 patient flows per year. All patients presenting with spontaneous abortion symptoms are initially evaluated at the emergency department of the hospital, incomplete abortion, and inevitable abortion cases will be admitted to the MCH (abortion unit) wards. Based on the 2019 Adigrat hospital report annually there were 1,009 abortion cases and from those 616 were spontaneous abortions.

4.2 Study design

The explanatory sequential mixed study design was employed. The facility-based unmatched case-control design was employed to measure the association of intimate partner violence during pregnancy and spontaneous abortion. Moreover, to explore the perception of mothers towards intimate partner violence and their understanding of avoiding spontaneous abortion, Key Informant Interview (KII) and In-Depth Interview (IDIs) were conducted in the same facility where the quantitative study was carried out.

Cases

Cases were mothers who were admitted in post-abortion care and on outpatient care service that experienced spontaneous abortion before the 28th week of gestation.

Controls (from the facility)

Controls were mothers in their 3rd and 4th ANC follow-up.

4.3 Population

4.3.1 Source population

All pregnant mothers who attended maternal health service in Adigrat general hospital, Tigray region, Ethiopia.

4.3.2 Study population

Pregnant women were attending the abortion care unit, ANC 3rd, and ANC 4th of Adigrat general hospital, Tigray region, Ethiopia during the study period.

The study participants for the qualitative study were women who have attended the spontaneous abortion care service of Adigrat general hospital. And health care providers in the maternity ward of Adigrat hospital, one police officer, and a focal person for gender office in the eastern zonal health department of the Tigray region.

4.4 Eligibility criteria

4.4.1 Inclusion criteria

- All spontaneously aborted mothers less than 28th week gestational age was included as cases in the study.
- All pregnant mothers who come for 3rd and 4th ANC follow up were included as controls in the study.

4.4.2 Exclusion criteria

- Individuals who were seriously ill and unable to respond

4.5 Sample size determination and sampling technique

4.5.1 Sample size determination

The sample size was determined using two population proportion formula using Epi info version 7.2.0.1 software. Taking intimate partner violence as a primary exposure variable and with the assumptions of two-sided significance level ($\alpha=5\%$), power $(1-\beta)=80\%$, 95% confidence level, a ratio of non-exposed to exposed (R) 1:2. We have to consider other exposure variables to calculate the sample size to control confounding. Those variables are maternal age, maternal education, and parity. The reason those variables were selected is most studies showed a significant association between those variables and spontaneous abortion.

The sample size was calculated using three different variables. According to that, IPV provides the largest sample size. That was calculated with assumptions of - 1. a proportion of exposure to any IPV during pregnancy as 26.1 %(20). 2. the odds of spontaneous abortion among women exposed to intimate partner violence compared to controls had taken as 2.08(33). 3. Mothers might not give consent due to adverse pregnancy outcomes and very sensitive and private nature of the exposure and the outcome variable, so the investigators will add 15% to compensate Non-responses. As a result, the total Sample size has become 126 cases, 252 controls and total 378.

For qualitative design

The sample size for the qualitative in-depth interview was guided by the saturation of ideas among interviewees who purposely selected mothers and health care providers (there were 07 health care professionals appointed on ANC and abortion care unite). One police officer and one Gender office focal person were included in the key informant interview.

Table 1: Sample size determination for assessing the association of IPV and spontaneous abortion in Adigrat general Hospital, Northern Ethiopia, 2019- 2020

Variables	Assumptions		Sample size in each group	Total sample size (with 15% NR)
Intimate partner violence	P of control	26.1%	Case= 107	Case= 126
			Control= 214	Control= 252
Total				378
Maternal age	P of control	15.7%	Control =73	Age group 15-20=81
	P of case (Age group >35)	42.8%	Case = 37	Age group >35=40
Total				121
Maternal education	P of control	48%	Control = 192	Control= 226
	P of case(< high school)	66.1%	case= 96	Case= 113
Total				339
Parity	P of control	46.3%	Control =146	Control=172
	P of case (parity > 2)	67.1%	Case =73	Case=86
Total				258

4.5.2 Sampling technique

The study area was selected based on the 2018 Tigray regional health bureau annual hospital report. From the report, Adigrat general hospital had the highest spontaneous abortion inpatient cases. Adigrat general hospital is also the biggest hospital in the eastern zone of the Tigray region.

The study population for the case was all mothers who were admitted in post-abortion care and on outpatient care service that experienced spontaneous abortion until the required sample size is obtained. The study population for the controls was selected using a systematic random sampling method. A random number was selected between 1 and 3 (K) using the lottery method. Then

every Kth (3rd) interval starting from that number was included in the study. K value was calculated using previous years (January – March) 3rd and 4th ANC follow up average report of Adigrat hospital. That K value becomes three, which means every third mother who came for ANC three and four was selected.

The study participants for the qualitative study were purposefully selected using the convenience sampling method from women who were attending the spontaneous abortion service in Adigrat general hospital. Mothers who are attending spontaneous abortion care were selected for the in-depth interview. The health care providers with minimum work experience of 6 months in the MCH department and one gender office focal person and one policeman were purposefully selected for the key informant interview.

4.6 Data collection instrument and process

4.6.1 Data collection instrument

There were two types of data collection tools. Those are: a face to face interview was conducted by using a pre-tested locally adopted questionnaire and Patient s' medical records were review for some medical variables. The questionnaire regarding IPV was adopted from the WHO 2005 Multi-country study to assess women's health and violence against women and Ethiopian Demographic and Health Survey. The questionnaire originally was developed in English then was translated to Tigrigna and back to English. The questionnaire was containing socio-demographic characters, risky behavior, medical problems, maternal reproductive factors, partner support during pregnancy, and experiences of IPV during the index pregnancy-related questions.

Qualitative data

The qualitative design interview guide was prepared first in English then was translated to Tigrigna. After the data collected the audio was transcribed word for word and then translated from the Tigrigna language to the English language. The interview guide was containing open-ended questions that assess the opinion of participants. A different interview guide was used for mothers, health providers, policeman, and focal person of the gender office zonal department. Some probes (as please explain, list, can you elaborate on the idea...etc.) were used as needed.

4.6.2 Data collection process

Data were collected by three female data collectors who have a bachelor's degree in midwifery and who don't work in the selected health facility. One experienced supervisor with a master's degree in public health was selected. The training was given to data collectors on the objectives of the study, the high sensitivity of the issue, confidentiality of responses, and contents of questionnaires two days before the data collection period by the principal investigator. The training was given using lectures and demonstrations on data collection procedures and supervision for two days' duration.

The same interview questionnaire was used to interview both cases and controls. Data was collected in a separate room to ensure their privacy and to encourage their communication motives. The outcome variable was measured by the medical records of a health professional diagnosed with spontaneous abortion (less than 28 weeks of gestation spontaneous termination of pregnancy). The Gestational age was measured using LNMP.

For qualitative design

In this study, the qualitative approach was conducted sequel after quantitative data was analyzed. Two data collection methods were used; Key Informant Interviews (KII) with zonal gender office focal persons and police officers. In-depth interviews were with mothers and health care providers. The interview was done by the principal investigator using the open-ended study guide. The interview was audio recorded. Two audio recorders were used for the data collection. The duration of the interview was determined by saturation of ideas during the data collection period.

4.7 Operational definitions

Spontaneous abortion or miscarriage: defined as the loss of a pregnancy without outside intervention before 28 weeks gestational age from the last normal menstrual period (LNMP)(3)

Emotional IPV during pregnancy: defined as mothers experienced any of the followings; have been insulted by husband by using abusive language that made feel bad, insulted in front of others, have been scared or intimidated on purpose, or have been threatened by husband with an

object such as a stick, belt, knife, gun, etc. by a current partner/boyfriend during the index pregnancy(1).

Physical IPV during pregnancy: defined as mothers experienced any of the followings; being slapped or having something thrown at her that could hurt her, being pushed or shoved, being hit with a fist or something else that could hurt, being kicked, dragged, being choked or burnt on purpose, and/or being threatened with/ having, a gun, a knife, or another weapon used on her by a current intimate partner during the index pregnancy (1).

Sexual IPV during pregnancy: defined as mothers experienced any of the followings; being physically forced to have sexual intercourse when she did not want to, having sexual intercourse because she was afraid of what her partner might do, and/or being forced to do something sexual that she found humiliating or degrading to her by an intimate partner during the index pregnancy (1).

Any Intimate Partner Violence during pregnancy: Women who experienced at least one of the above offenses will be classified as having experienced any IPV during the index pregnancy(1).

4.8 Study variables

4.8.1 Dependent variable

- Spontaneous abortion (< 28th week of gestation)

4.8.2 Independent variables

Those experiences of IPV during pregnancy: Any IPV (physical or sexual or emotional), Physical IPV, Sexual IPV, and Emotional IPV

4.8.3 Covariates

1. **Socio-demographic characters:** - Maternal age, maternal education status, marital status, age of at first marriage, residence, religion mother's, occupation, monthly household income, and partner education status.

2. **medical factors**:- Hypertension during pregnancy, nutritional status of the mother, HIV status (reactive/negative), any infection disease, previously untreated STI disease, chronic heart disease, and DM
3. **Maternal reproductive factors**:- Birth interval, history of Previous induced abortion, history of Previous spontaneous abortion, history of Previous CS delivery, gestational age (using LNMP), and parity
4. **Risky Behaviors factors**:- Substance use during pregnancy, Cigarette smoking, khat chewing, alcohol consumption, husband smoke cigarette, and husband alcohol consumption.

4.9 Data processing and analysis

The data were checked for completeness and consistency manually. Epidata manager (v4.6.0.2) was used for data entry. The data was then exported and analyzed using Stata version 24. Descriptive statistics of numeric variables (like maternal age and monthly income) were presented in medians with inter-quartile range. A categorical variable (like marital status, maternal educational status, and exposure to IPV) was presented using frequency distributions. The outcome variable, spontaneous abortion, is dichotomous.

An attempt was also be made to have composite variables for emotional, sexual, physical, and overall intimate partner violence from different variables included in the questionnaire. Then the magnitude of IPV and its different forms was presented using a bar graph. The levels of spontaneous abortion by different characteristics including the main variable IPV were cross-tabulated and the overall association was checked using a chi-square test. The association between spontaneous abortion and IPV was checked using a binary logistic regression model. Also, the same model was used to calibrate the association of different covariates with spontaneous abortion. Then the multi-collinearity of different factors was assessed using the variance inflation factor (VIF). Ultimately, those variables with a p-value <0.2 were entered into the multivariable binary logistic regression model to single out the effect of IPV on spontaneous abortion after controlling other covariates.

The strength of association was measured by both crude odds Ratio (COR) and adjusted odds ratio (AOR) with 95% confidence interval for the spontaneously aborted mothers among IPV

exposed was presented:- 95% confidence interval and P-value <0.05 was used to declare statistical significance. Finally, the result was presented in tables, figures, and texts accordingly. For the qualitative data, the first data was transcribed word for word and then translated from the Tigrigna language to the English language. The English version was exported into the Open Code software version4.02. The software was used for facilitating coding and categorization. Thematic content analysis was used.

4.10 Data quality assurance

To assure the quality of data, the data collection tool was adopted from the WHO Multi-Country Study and prepared before the actual data collection. Close supervision was carried out by the principal investigator. Any problem faced at the time of data collection was discussed and corrective measures were made immediately.

A pre-test was done one week before the actual data collection period on 5% of similar study populations in the same study area. To ensure clarity, wordings, logical sequence, and availability of important variables in the patient medical records and some or total modification was done on questions that affect the consistency of data.

The training was given to data collectors and supervisors on the objectives of the study, the high sensitivity of the issue, confidentiality of responses, and contents of questionnaires two days before the data collection period by the principal investigator. The training was given using lectures and demonstrations on data collection procedures and supervision for two days' duration.

Before the analysis, 20% of the data was double-entered randomly to check data entry errors.

4.11 Ethical considerations

Ethical approval was obtained from both the research ethics committees of the school of public health, Addis Ababa University, and Tigray region Health Bureau. No personal identifiers were used and Verbal consent was taken after explaining the stated risk. The study was taking the time of participant and may have a little discomfort while remembering the occasion happening but does not have any risk. They provided information regarding the purpose, objective, procedures, potential risks, and benefits of the study. They were also assured of strict confidentiality and privacy about any information obtained from them. Each participant was assured that they have the right to refuse, ask any question that is not clear, and discontinue the Interview at any time in between for any inconveniences. All tapes were erased once transcripts had been made.

4.12 Dissemination of findings

After the completion of the study, the finding after being defended at the School of Public Health, College of Health Sciences, Addis Ababa University it will be submitted to the School of graduate studies of Addis Ababa University, principal and co-advisors of the thesis, Tigray regional health bureau, Adigrat health bureau, and concerned others. Publication in an international, professional high impact journal will be considering.

5. Result

5.1 Socio-demographic factors

In this unmatched case-control study, a total of 378 study participants (126 cases and 252 controls) who were invited to participate one from the case group and three from the controls group refused to participate in the study. The reason they refuse to participate was one due to lack of time and three due to the sensitivity of the topic. Therefore a total of 371(124 cases and 247 controls) women completed the interview. The response rate was 98.15%.

The median age of mothers who participated was 26 years with an interquartile range of 23-30 years. That was similar in cases and control groups (27years, 26 years respectively). Of the entire study participants, 82.59% of controls reside in urban compare to 73.39% of cases. The age at first marriage was higher in case groups (25.22%) compared with the control group (21.37%). About (10.48%) of mothers in the case group were illiterate compared with 2.83% of mothers in the control group. The median household income of the study participants was 5000ETB with an IQR of 3000-7000ETB. The median household income of controls was 5000ETB compare to 4000ETB in cases. Further, see table 2...

Table 2: socio-demographic characteristics of the study participants in Adigrat general hospital, Ethiopia, 2020

Predictor variables		Case N (%)	Control N (%)	p-value (X ²)
Age of mother	15-24	43 (34.68%)	102 (41.30%)	P<0.104
	25-29	34 (27.42%)	78 (31.58%)	
	>=30	47 (37.90%)	67 (27.13%)	
place of residence	Urban	91 (73.39%)	204 (82.59%)	P<0.038
	Rural	33 (26.61%)	43 (17.41%)	
current marital status	not-married	14 (11.29%)	15 (6.07%)	P< 0.100#
	currently married	110 (88.71%)	232 (93.93%)	
age at first marriage	<18 years	29 (25.22%)	50 (21.37%)	P<0.419
	>18 years	86 (74.78%)	184 (78.63%)	
Religion	orthodox	117 (94.35%)	227 (91.90 %)	P< 0.526#
	Others ¹	7 (5.65%)	20 (8.10%)	
maternal educational status	not educated	13 (10.48%)	7 (2.83%)	P< 0.001#
	Primary	35 (28.23%)	36 (11.57%)	
	Secondary	59 (47.58%)	164 (66.40 %)	
	Higher	17 (13.71%)	40 (16.19%)	
husband educational status	not educated	5 (4.10%)	5 (2.02%)	P< 0.556#
	Primary	22 (18.03%)	45 (18.22%)	
	Secondary	66 (54.01 %)	127 (51.42 %)	
	Higher	29 (23.77%)	70 (28.34%)	
maternal occupation	Housewife	67 (54.03%)	152 (61.54 %)	P<0.468#
	Government employee	18 (14.52%)	34 (13.77%)	
	private employee	13 (10.48%)	18 (7.29%)	
	Any others ²	26 (20.97)	43 (17.41)	
husband occupation	Farmer	21 (17.36%)	19 (7.69%)	P< 0.048#
	Merchant	27 (22.31%)	61(24.70 %)	
	government employee	30 (24.79%)	61(24.70 %)	
	Private employee	43 (35.54%)	106 (42.91%)	
household monthly income	<1500 ETB	19 (15.83%)	29 (11.84%)	P< 0. 0.440#
	1500-3499	25 (20.83%)	46 (18.78%)	
	>3500 ETB	76 (63.33%)	170 (69.39%)	

Key: **others¹** includes Muslim, catholic, and protestant. **Any others²** includes farmer and merchant. X² # represents fisher exact test for those cells less than 5 or those subtotals less than 20.

5.2 Maternal reproductive factors

In this study, 61.94% of study participants in controls, and 66.94% of the case groups were multigravidas. The 83.22% of mothers in control had > 24-month inter-pregnancy interval compare with mothers within the case group (69.88%). The 40.96% of mothers in cases with a history of abortion was higher compare with controls (26.14%). Furthermore, 11.29% of mothers in a case group had taken traditional medicine to compare with mothers in control (2.43%). See table 3...

Table 3: maternal reproductive factors of study participants in Adigrat general hospital, Tigray region, Ethiopia, 2020

Predictor variables		Case N (%)	Control N (%)	p-value (χ^2)
Gravida	Primigravid	41 (33.06%)	94 (38.06%)	P< 0.346
	Multigravida	83 (66.94%)	153 (61.94%)	
Parity (live birth)	0-2	57 (68.67%)	106 (69.74 %)	P< 0.866
	>2	26 (31.33%)	46 (30.26%)	
Inter-pregnancy interval	<24 month	25 (30.12%)	25 (16.78%)	P< 0.018
	>24 month	58 (69.88%)	124 (83.22%)	
Previous history of abortion	yes	34 (40.96%)	40 (26.14%)	P< 0.019
	No	49 (59.04%)	113 (73.86%)	
History of CS delivery	yes	12 (14.63%)	26 (17.11%)	P< 0.712#
	No	70 (85.37%)	126 (82.89%)	
Take any drugs during pregnancy	yes	8 (6.45%)	6 (2.43%)	P< 0.080#
	No	116 (93.55%)	241 (97.57%)	
Traditional medicines intake during pregnancy	yes	14 (11.29%)	6 (2.43%)	P<0.001#
	No	110 (88.71%)	241 (97.57%)	
Mother has a history of spontaneous abortion	yes	23 (18.70%)	25 (10.12%)	P< 0.032#
	No	100 (81.30%)	222 (89.88%)	

Key: χ^2 # represents fisher exact test for those cells less than 5 or those subtotals less than 20.

5.3 Medical condition factors

Of the total study participants, 4.03% of mothers in the case and 2.02% in control had reported diagnosed with HTN. 17.74% of study participants in the case group had reported having symptoms of STI during the current pregnancy compare to 16.60% of the control group. At the same time, 47.62% of mothers in the case group had get treatment compare to 42.50% in the control group. Furthermore, 19.35% of mothers in the case group were severely malnourished compare to 17.41% of mothers in the control group. See table 4

Table 4: medical condition factors of study participants in Adigrat general hospital, Tigray region, Ethiopia, 2020

Predictor variables		Case N (%)	Control N (%)	p-value (X ²)
family history of DM	Yes	5 (4.03%)	13 (5.26%)	P< 0.799#
	No	119 (95.97%)	234 (94.74%)	
diagnosed with HTN	yes	5 (4.03%)	5 (2.02%)	P<0.312#
	No	119 (95.97%)	242 (97.98%)	
STI during the current pregnancy	Yes	22 (17.74%)	41 (16.60%)	P< 0.771#
	No	102 (82.26%)	206 (83.40%)	
STI treated	Yes	10 (47.62%)	17 (42.50%)	P< 0.702
	No	11 (52.38%)	23 (57.50%)	
MUAC	SAM	24 (19.35%)	43 (17.41%)	P< 0.516#
	Moderate	52 (41.94%)	93 (37.65%)	
	Normal	48 (38.71%)	111 (44.94%)	

Key: X²# represents fisher exact test for those cells less than 5 or those subtotals less than 20.

5.4 Risk behavioral factors

Of the total study participants, 0.81% of mothers in controls and 0.81% in a case reported having ever chewed khat in their lifetime. About 88.11% of mothers in control drink any alcohol during pregnancy compared to 84.69% of mothers in case. A higher proportion of study participant's partners had drunk alcohol a few times a week in case (224.10%) compare to the controls (12.87%). Furthermore, the head of households 96.76% of the study participants in the control group were husbands compared to 91.94% in case groups. See table 5...

Table 5: risk behavior factors of study participants in Adigrat general hospital, Tigray region, Ethiopia, 2020

Predictor variables		Case N (%)	Control N (%)	p-value (X ²)
ever drink alcohol	Yes	98 (79.03%)	194 (78.54%)	P< 0.913
	no	26(20.97%)	53(21.46%)	
drink any Alcohol in the current pregnancy	Yes	83 (84.69%)	171 (88.11 %)	P<0.462#
	No	15 (15.31%)	23 (11.86%)	
frequency of drink alcohol	few times per week	20 (24.10%)	22 (12.87%)	P< 0.030#
	on special occasions	63 (75.90%)	149 (87.13%)	
partner chew Khat	Yes	4 (3.23%)	6 (2.43%)	P< 0.737#
	No	120 (96.77 %)	241 (97.57%)	
partner smoke cigarettes	Yes	9 (7.26%)	8 (3.24%)	P< 0.112#
	No	115 (92.74 %)	239 (96.76%)	
partner drink Alcohol	Yes	95 (76.61%)	210 (85.02%)	P< 0.061#
	No	29 (23.39%)	37 (14.98%)	
frequency of partner drink alcohol	Few time a week	38 (40.00%)	70 (33.49%)	P< 0.542
	Once a week	24 (25.26%)	60 (28.71%)	
	Weekend/on special occasions	33 (34.74%)	79 (37.80%)	
head of the household	husband	114 (91.94%)	239 (96.76%)	P<0.069#
	self	10 (8.06%)	8 (3.24%)	
the social norm that supports IPV	Yes	24 (19.35%)	65 (26.32%)	P<0.139
	No	100 (80.65%)	182 (73.68%)	

Key: X² # represents fisher exact test for those cells less than 5 or those subtotals less than 20.

5.5 Partner support during pregnancy

Among the total study respondents in the control group, 43.09% had low partner support during pregnancy while only 40.16% of the study participants among the case group had low partner support during pregnancy. See figure 2...

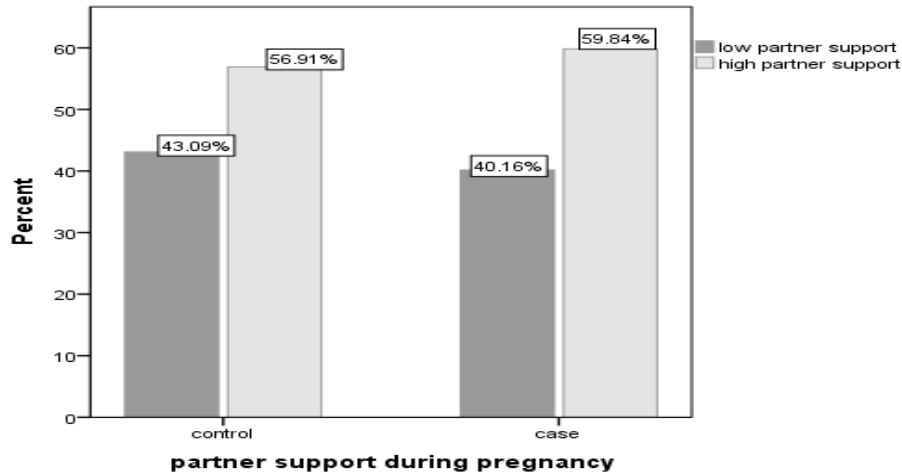


Figure 2: partner support during pregnancy and spontaneous abortion, Tigray region, Ethiopia, 2020

5.6 The magnitude of intimate partner violence during pregnancy

The overall proportion of exposure to any intimate partner violence during pregnancy was 42.05%. That was 57.26 % among mothers in the case group compared to 34.41% of mothers in the control group, most typically emotional, physical then sexual intimate partner violence. The proportion of mothers exposed to physical intimate partner violence during pregnancy was higher in case groups (43.55%) compared with control groups (18.22%). See figure 3....

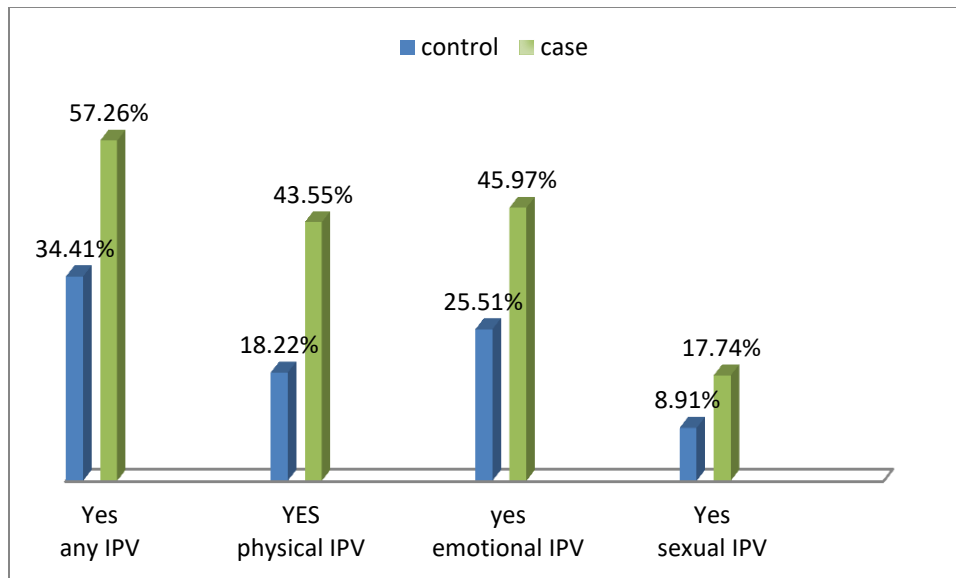


Figure 3: intimate partner violence during pregnancy among mother in Adigrat town, Tigray region, Ethiopia, 2020

5.7 Factors associated with spontaneous abortion

To evaluate the association between intimate partner violence during pregnancy and spontaneous abortion, bivariate logistic regression analysis was done with odds ratios (OR) and 95% confidence intervals. The covariates with a p-value of less than 0.25 with both the exposed variable and outcome variable; in the bivariate logistic regression analysis were entered into the multivariable logistic regression analysis to control the influence of potential confounding variables. However, before performing multivariable logistic regression, multicollinearity between the independent variables was checked using VIF.

On binary logistic regression analysis, age of mother, residence, marital status, maternal educational status, partner education status, maternal occupation, monthly income, her maternal history of spontaneous abortion, and frequency of alcohol intake were significantly associated ($p < 0.25$) with both the exposed variable (intimate partner violence) and the outcome variable (spontaneous abortion). Furthermore, a variable that didn't have a statistical association in this study but was significant associated in previous literature was entered into multivariable logistic regression. Those variables are; IPI, history of abortion, traditional medicine intake, history of CS, and parity.

After multivariable logistic regression analysis was made, mother who exposed to any intimate partner violence during pregnancy had 4 times higher odds of spontaneous abortion than mother who don't expose to any IPV; 3 times higher odds of spontaneous abortion among women who exposed to physical intimate partner violence compared to those who don't expose to physical IPV.

Furthermore, the odds of spontaneous abortion among mothers who take traditional medicine during pregnancy was 8 times higher than those who don't take any traditional medicine during pregnancy: 4 times higher among mothers whose age is ≥ 30 years old compared to those less than 30 years old; women who had IPI less than 24 months had 3 times higher odds of spontaneous compare to who had >24 months IPI; nearly 3 times higher odds of spontaneous abortion among mothers who consume alcohol at least once per week compared to those who consume alcohol on occasions and holidays (model 2). For further see table 6...

Table 6: Factors that have an association with the spontaneous abortion of study participants in Adigrat general hospital, Tigray region, Ethiopia, 2020

Predictor variables		COR (95% CI)	Model 1	Model 2
			AOR (95% CI)	AOR (95% CI)
Emotion IPV	Yes	2.48 (1.58-3.91)***	----	1.60 (0.59-4.10)
	No	Ref...	----	Ref...
Physical IPV	Yes	3.46 (2.14-5.59)***	----	3.06 (1.09-8.59)*
	No	Ref...	----	Ref...
Sexual IPV	Yes	2.20 (1.17-4.16)***	----	2.53 (0.65-9.81)
	No	Ref...	----	Ref...
Any IPV	Yes	2.55 (1.64-3.97)***	4.65 (1.94-11.14)***	----
	No	Ref...	Ref...	----
Age of mother	15-24 years	0.97 (0.56-1.66)	3.23 (0.92-11.43)	3.02 (0.86-10.66)
	>=30 years	1.61 (0.93- 2.79)	4.21 (1.45-12.28)**	3.97 (1.35-11.69)*
	25-29 years	Ref...	Ref...	Ref...
Residence	Rural	1.72 (1.03-2.88)*	1.35 (0.48-3.77)	1.38 (0.49-3.87)
	Urban	Ref...	Ref...	Ref...
Marital status	Not-married	1.97 (0.92-4.22)	2.33 (0.15-37.46)	2.99 (0.16-55.61)
	Currently married	Ref...	Ref...	Ref...
Educational status	Not educated	4.37 (1.48-12.87)**	2.54 (0.28-23.23)	2.68 (0.30-24.12)
	Primary	2.29 (1.10-4.77)*	1.30 (0.23-7.56)	1.41 (0.25-8.11)
	Secondary	0.85 (0.45-1.60)	0.30 (0.06-1.51)	0.34 (0.69-1.69)
	Higher	Ref...	Ref...	Ref...
Partner educational status	Not educated	2.41 (0.65- 8.97)	1.73(0.17- 17.53)	2.23 (0.22- 22.34)
	Primary	1.18 (0.61- 2.30)	1.12 (0.22- 5.60)	1.01 (0.21- 4.94)
	Secondary	1.25 (0.74- 2.12)	1.24 (0.37- 4.21)	0.99 (0.29- 3.37)
	Higher	Ref...	Ref...	Ref...
Maternal occupation	Housewife	0.61 (0.28-1.32)	0.41 (0.07-2.42)	0.42 (0.07-2.22)
	Government employee	0.73 (0.29-1.82)	1.01 (0.11-9.25)	0.99 (0.11-8.85)
	Any others	0.84 (0.35-1.99)	1.17 (0.17-8.28)	1.16 (0.17-8.10)
	private employee	Ref...	Ref...	Ref...
Monthly income `	<1500 ETB	1.46 (0.77-2.77)	0.42 (0.12-1.52)	0.34 (0.09-1.31)
	1500-3499 ETB	1.22 (0.70-2.12)	0.85 (0.30-2.39)	0.83 (0.29-2.35)
	>=3500 ETB	Ref...	Ref...	Ref...
Parity	>2	1.05 (0.59-1.87)	0.48 (0.12-1.52)	0.43 (0.14-1.34)
	<2	Ref...	Ref...	Ref...
Inter-pregnancy interval	<24 month	2.14 (1.13-4.04)*	3.02 (1.02-8.99)*	3.05 (1.01-9.21)*
	>24 month	Ref...	Ref...	Ref...
History of abortion	Yes	1.96 (1.11-3.46)*	0.64 (0.23-1.77)	0.68 (0.24-1.91)
	No	Ref...	Ref...	Ref...
History of CS	Yes	0.83 (0.39-1.75)	0.62 (0.21-1.90)	0.62 (0.19-1.94)
	No	Ref...	Ref...	Ref...
Traditional medicine intake	Yes	5.11 (1.91-13.66)***	8.08 (1.57-41.57)*	8.02 (1.50-42.89)*
	No	Ref...	Ref...	Ref...
Maternal history of abortion	Yes	2.04 (1.11-3.77)*	1.00 (0.28-3.58)	1.00 (0.28-3.59)
	No	Ref...	Ref...	Ref...
Frequency of alcohol intake	Few times per week	2.15 (1.10-4.22)*	2.52 (0.94-6.79)	3.35 (1.23-9.13)*
	On a special occasion	Ref...	Ref...	Ref...

Key: COR= Crude odds ratio, AOR= Adjusted Odds ratio, IPV= Intimate partner violence, p<0.05 *, P<0.01**, P<0.001***

5.8 Result for the qualitative approach

A total of 12 respondents (8 mothers and 4 health care professionals) for an in-depth interview and 2 respondents for key information were interviewed. 8 of them were mothers who were exposed to spontaneous abortion and 4 of there were health professional that works on MCH. One policeman and one was the focal person for gender office.

Socio-demographic characteristics of the study participants

Table 7 Socio-demographic characteristic of mothers who participated in the qualitative approach

ID No	Age	Residence	Marital status	Religion	Educational status	Occupation
ID 01 M	30	Urban	Windowed	Orthodox	Diploma	Governmental employee
ID 02 M	28	Rural	Married	Muslim	Secondary	Housewife
ID 03 M	22	Rural	Married	Orthodox	Secondary	Marchant
ID 04 M	27	Urban	Married	Orthodox	Primary	Ho usewife
ID 05 M	18	Urban	Married	Orthodox	Secondary	Housewife
ID 06 M	38	Urban	Married	Orthodox	Diploma	Governmental employee
ID 07 M	26	Urban	Single	Orthodox	Degree	Governmental employee
ID 08 M	20	Urban	Married	Orthodox	Diploma	Housewife

Theme 1: opinion toward intimate partner violence

1.1 Understanding toward intimate partner violence

1.1.1 Meaning of intimate partner violence

Almost the entire respondent didn't support intimate partner violence. They believe in any means husband shouldn't beat his wife; if she has fault he should make her understand verbally. This means most of our study participants didn't support the act of intimate partner violence by any means. For most of the respondents, intimate partner violence means when the husband beats, insults, humiliated her. Some participant also indicates if her husband hit her, Rape, threatened her and didn't include her in decision making it is intimate partner violence.

“I considered a physical assault as an easy assault. But a serious assault is when one is sexually assaulted, raped, or even put under unnecessary pressure of family. For example, when the husband doesn’t include her in making decisions or doesn’t even consider her as his partner and beats her.” ID 03M

One respondent thinks women can also perpetrators intimate partner violence. Most of them believe men are the perpetrators of intimate partner violence.

“Mostly men are the main abusers in marriage but sometimes women abuse too.” ID 06 M

1.1.2 Types of intimate partner violence

All most all mothers classified intimate partner violence into beating, insulting, rape, and controlling. Health professionals also classify IPV into physical, emotional, sexual, and economic pressure. These findings indicate based on our study participants’ intimate partner is classified as emotional, physical, controlling behavior, and sexual intimate partner violence.

1.1.3 Cause of intimate partner violence

All most of the participants didn’t support IPV however; IPV is still committed in society. As the most of participants indicated drinking alcohol, inequality, and social perspectives of IPV were the commonest risk factors lists. The societies also think intimate partner violence is a normal act and some sayings facilitate IPV. Some of those saying are:-

“.....a wife and a donkey have to be hit to do right so...” ID 01 M

“...Women should get used to their husband's behavior whatever that is...” ID 06 M

Some participants also mentioned smoking, uneducated, money problem, unemployment, jealousy, backwardness, dependence, dishonesty, habit, lack of family support, misunderstanding, and talking back to your husband as causes of intimate partner violence.

“The community considers the abuse of a wife by her husband as if it normal but forbidden her to do anything wrong to her husband....Even your family will not support you when you want to take action or divorce them.....” ID 06 M

Based on the study participants the risk factors for intimate partner violence are drinking alcohol, inequality, and social perspectives of IPV, smoking, uneducated, money problem, unemployment, jealousy, backwardness, dependence, dishonesty, habit, lack of family support, misunderstanding, and talking back to your husband.

1.1.4 The consequence of intimate partner violence

The most common consequence of IPV mentioned by the participants was disability, depression, divorce, and losing your pregnancy. Some participants also indicated insecurity, poor self-esteem, HIV, economic problems unwanted pregnancy, stress, preterm labor, preeclampsia, APH, and severe death as a consequence of intimate partner violence. Intimate partner violence also can affect children's mental and physical health.

“Those women will suffer from economical, psychological, and biggest health problems. When I say psychological she may suffer from depression and less self-confidence. They will also suffer from unwanted pregnancy because she is dependent on her husband she may not use contraceptive if her husband didn’t allow her.” ID H.P 03

1.2 Strategy, programs, and preventions on IPV

1.2.1 Prevention methods

Most of the participants believe by making awareness and solving their problem with communication intimate partner violence can prevent. Some also mention IPV can be prevented by creating job opportunities that can solve the money problem that is the cause of IPV, punishment for those who commit IPV, watching media programs related to IPV, and accepting each other's behavior.

Some also mention that women themselves should protect from abuse by not talking back or not being around their husband especially when he is drunk and by going to the police.

“.....she either has to go to the police or communicate if he is a kind to listen and change.....Society will not help her unless she is very hurt like bleed or worse so she has to fight herself. The Government should give job opportunities to jobless women.” ID 02 M

The gender focal person indicated that to prevent IPV strategies and programs have been implemented in the zone. Those are a multi-sectorial collaboration with the court, health, women developmental army, and NGOs; creating awareness and giving training to health professionals and other professions. They also provide financial or social support for those women who didn't have support and capacity.

1.2.2 Challenges

During the prevention of IPV, the zonal gender office has faced many challenges. Some of those challenges mentioned by the focal person women's don't perused suing until the end, pride, and afraid to talk about their abuse.

“They hide their pain by fearing gossip. They don't pursue it till the end. They usually associate it with pride. But the main problem is that after every abuse these women make peace with their husbands in fear of social judgment....” ID K.I W.A

1.2.3 Recommendation

The zonal gender office focal person recommends that more training and awareness should be given to society and professionals that work on gender-based violence. She also indicates multi-sectorial collaboration, gives focus on women's developmental armies, monitoring and evaluating the training program.

1.3 Management of IPV

1.3.1 Health care management of IPV

Most health professionals manage intimate partner violence that had a spontaneous abortion by admitting MCH, giving antibiotics, doing MVA, and giving medical attention (check BP, pulse, and temperature). Only one participant manages intimate partner violence that had a spontaneous abortion by linking them with social workers and women afire.

“There was this woman who came from gulomekeda woreda. She said that her life was in danger and she wouldn't go back to her house. By collaborating with the social committee, we linked her up with the women's affairs.” ID H.P 02

This finding indicates that most of the health professionals in our study didn't have training or knowledge on how to approach intimate partner violence.

1.3.2 Society management of IPV

Most of the participants indicate that in society if women complain about intimate partner violence they managed it commonly by negotiation, reconcile, telling them to be patient, and divorce. However, some of them may be suing their partners to the court but it is rare.

“Most of the time the solution is the only divorce. Some of the educated women think suing is better but some of the society tells you to be patient “Women should get used to their husband's behavior whatever that is”.” ID 06 M

Negotiation means when society gives advice, solving their problem by communicating with both of them, and counseling them.

1.3.3 Legal management of IPV

When a woman came to a policeman complaining of her husband beat her. They manage it by gathering the cause of IPV, put a solution to the cause collaborating with elderlies, and if they didn't solve the problem they transfer the case to court. Furthermore most of the time husband and wife fight during the nighttime; so until they solve the problem in the morning, the husband will sleep in his friends or family house for the time being.

“...We will try to get the husband out of the house by negotiation. However, we can't force him to get out of the house. But if he abuses her severally (means physically injury her severally) we will oblige to arrest him overnight in the station.” ID K.I P

Theme 2: understanding toward prevention of spontaneous abortion

3.1 Understanding of spontaneous abortion

2.1.1 Meaning of spontaneous abortion

The participants give different meanings to spontaneous abortion. Based on the participants' response Spontaneous abortion is happening naturally or the loss of a baby in the form of blood, the fetus dies in the mother's womb and losing pregnancy unwillingly.

“Spontaneous abortion for me is when the fetus dies in the mother's womb.....” ID 05 M

2.1.2 Cause of spontaneous abortion

From the participants the most common cause of spontaneous abortion was carrying heavy things, stress, naturally, anger, physically beating, and tying traditional medicine. Some participants also mention drinking alcohol, other health problems like HTN, unmatched blood type between couples, not doing regular medical check-ups, and drinking traditional medicine as a cause of spontaneous abortion.

“If another pregnant woman passes near the other pregnant women (which means a pregnant woman who has tied traditional medicine to protect her baby can harm the other and leads to miscarriage).” ID 01 M

Tie traditional medicine means there is a norm in the community that pregnant women tie traditional medicine on their arms to protect them self’s from miscarriage. However, they believe that if one pregnant mother had this medicine she can cause miscarriage for other pregnant women.

2.1.3 The consequence of spontaneous abortion

Most of the participants believe spontaneous abortion can have bleeding, pain, and depression consequences. At the same time, some participants also mention anemia, infection, guilt, discomfort, and may abuse by their husbands.

“Women may abuse by her husband because he thinks it is the women's fault that the baby died. They may also suffer from infections.” ID 07 M

Discomfort means when the women experience bleeding when she was in public places she will feel discomfort and embarrassment. She will also feel guilt because she thinks it is her fault that the fetus died.

2.2 Relation of spontaneous abortion and IPV

Two mothers’ in our study didn’t think there is a relationship between intimate partner violence and spontaneous abortion. However; most mothers in our study believe there was a relation between spontaneous abortion and IPV through physical beating, sadness, and stress.

“In my opinion, spontaneous abortion and intimate partner violence have a relationship. For example, if her husband beat her she may lose the baby....” ID 05 M

2.3 Prevention of spontaneous abortion

Most of the participants believe spontaneous abortion can be prevented. That is by not lifting heavy things, getting prenatal advice, doing regular check-ups, eating balanced food, not tying traditional medicine, and less anger. However, some participants didn't think spontaneous abortion can be prevented.

“...I don't think that having tied traditional medicine to protect yourself is the right thing to do because it means you are killing someone else's child to protect yours it doesn't give sense to me. The solution is to not wear the traditional medicine as our mothers used to do.” ID 02 M

Theme 3: perception of mothers toward partner support during pregnancy

3.1 partner support during pregnancy

Concerning their perception of partner support during pregnancy most of the mothers in our study believe that the husband should support his wife during pregnancy by helping her with house chores, fulfilled her needs means buying her fruiters, vitamins, and her craving during pregnancy. Some mothers also believe the husband should support his wife by listening to her opinion, accompany her to ANC follow up, and helping her carry heavy things.

“He must help her by fulfilling her medical and nutritional needs. He also needs to understand her filling during pregnancy that is craving, loss of appetite, and nausea. He also should support her on house chores.” ID 03 M

6. Discussion

In this study, we tried to assess the association of intimate partner violence during pregnancy (any IPV, emotional IPV, physical IPV, and sexual IPV) and spontaneous abortion. The study showed those mothers who were exposed to physical and any intimate partner violence during pregnancy are significantly associated with spontaneous abortion.

The study also revealed that the odds of spontaneous abortion were significantly 4 times higher for women who were exposed to any intimate partner violence during pregnancy compared with those who did not expose to physical IPV during pregnancy. This finding was similar to the institutional-based cross-sectional study conducted in Nigeria which indicated those women who were exposed to any IPV had 2 times higher odds of spontaneous abortion than those that don't expose to any IPV (33, 34). This finding is also in line with a national-wide cross-sectional study conducted in Ethiopia. It showed women who were exposed to any form of IPV had 1.54 increased odds of pregnancy loss that includes miscarriage compared to those who don't have exposed to IPV (35). This might be through the direct results of physical trauma to the abdomen which will cause trauma to the pregnancy. This will cause blood loss and losing the fetus. The second mechanism is indirectly physical and emotional intimate partner violence can affect pregnancy due to stress and emotional trauma that causes in decreasing the immune system, having a higher risk of developing a chronic disease like HTN, and DM. Stress during pregnancy may raise cortisol levels that lead to constriction of the blood vessels and limiting blood flow to the uterus(5).

Mothers who were exposed to physical intimate partners were also found to have 3 times higher odds of spontaneous abortion compared to mothers who don't expose to physical intimate partner violence during pregnancy (AOR 3.06, CI 1.09-8.59). Our result in lines with a cross-sectional study conducted in Ghana showed those women who were exposed to physical IPV had 4 times higher odds of spontaneous abortion than those who don't expose to physical IPV(37, 38). Physical intimate partner violence during pregnancy features a direct risk for spontaneous abortion through direct trauma to the abdomen. This will cause trauma to the pregnancy which will cause bleeding and spontaneous abortion. Several studies also showed that physical IPV had a significant association with spontaneous abortion. At the same time, a cross-sectional study

conducted in CONGO (37, 38) and a longitudinal study conducted in India (18) contraindicated our result; there was no significant association between physical IPV and spontaneous abortion. This difference can be explained by the case-control study designs that are appropriate for answering the study question. Besides, they measured the exposure to physical IPV using one year or lifetime exposure to physical IPV, which had the limitation of showing temporal relationships effect. Sociocultural discrepancy across the study settings could also explain.

This result also supports the qualitative finding. Within the qualitative finding, participants believe that if a pregnant woman is beaten up physically by her husband and due to stress she could also be exposed to spontaneous abortion. That supports the direct mechanism explanation for intimate partner violence for spontaneous abortion. Additionally, the participants also mentioned that stress can be a risk for spontaneous abortion that has an indirect explanation for the mechanism. Most health care professionals who participated in our study said spontaneous abortion-related to intimate partners can be managed by treating clinically. Those mothers didn't get mental and social support for the victim of intimate partner violence.

On the other hand, there was no significant associated sexual intimate partner violence during pregnancy had 2.53 times higher odds of spontaneous abortion compared to women who were not exposed to sexual intimate partner violence during pregnancy. Our result is in line with cross-sectional studies conducted in Congo that indicated women who were exposed to sexual IPV do not have a significant association with spontaneous abortion (37, 38). However, this was contradicted with the cross-sectional study conducted in Cameroon which stated women exposed to a sexual form of IPV had 1.6 increased odds of spontaneous abortion than those that do not expose to sexual IPV(14). This could be due to differences in study design, exposer time measurement, sexual intimate partner violence during pregnancy might be underreported and sociocultural discrepancy across the study settings could also explain.

Even though, exposure to emotional intimate partner violence during pregnancy had significantly associated with spontaneous abortion in bivariate logistic analysis; after controlling confounding Spontaneous abortion did not have significantly associated with emotional intimate partner violence during pregnancy. Our study had a similar finding with health facility-based cross-sectional studies conducted in Zimbabwe and Ghana, indicated emotional IPV does not have a significant association with spontaneous abortion (16, 39). Nevertheless, within the cross-

sectional study conducted in Pakistan and Congo women who were exposed to an emotional form of IPV had a higher odds of spontaneous abortion than those that were not exposed to emotional IPV(37, 38). Such failure of association in this study could also be due to the study design. Our study used case-control that shows cause and effect relationship compare to the cross-sectional design. The difference within the study results could be due to the population size within the studies. The studies in Pakistan and Congo used nationwide data while this study was only conducted in a single institution. Sociocultural discrepancy across the study settings could also explain.

Additionally, in our study maternal age had a significant association with spontaneous abortion. Maternal age >30 years old had about 4 times higher odds of spontaneous abortion than women less than 30 years old. This study is in line with a community-based cross-sectional study conducted in Debre Tabor town, Ethiopia, which indicated advanced maternal age had a significant association with adverse pregnancy outcomes; one of them which is spontaneous abortion (41).

Women whose inter-pregnancy interval is less than 24 months had 3 times higher odds of spontaneous abortion than women with > 24-month inter-pregnancy interval. Even though the IPI moths were higher in our study; our finding backing a study conducted in Matlab, Bangladesh which showed that women with an inter-pregnancy interval of fewer than 14 months had 1.8 odds of spontaneous abortion(48). The influence of long inter-pregnancy interval on spontaneous abortion perhaps is due to the uterus needs more time to recover after giving birth or miscarriage. This could be an indicator to facilitate the utilization of family planning.

Even though, in bivariate logistic analysis previous history of abortion was significantly associated with current spontaneous abortion; after entering to multivariate logistic analysis history of abortion did not have a significant association with current spontaneous abortion. These findings go in line with a cohort study conducted within the UK (2013), which indicated no significant association between the previous history of miscarriage with current spontaneous abortion (46). In the same manner, our finding contradicted with a cohort study conducted in Jerusalem and Norway, that showed women who had a previous history of miscarriage and CS delivery had a higher risk of miscarriage than those who do not have a history of miscarriage and

CS delivery, (49, 50). The difference in the association explained by the previous history of spontaneous abortion was the main independent variable that is not in our case. The study design they used was also stronger compared to our study. The impact of the previous history of abortion on spontaneous abortion can be due to infections and/or surgical traumas from the MVA procedure.

Even though drinking alcohol during pregnancy does not have a significant association with spontaneous abortion; the frequency of alcohol drinking during pregnancy had a significant association with spontaneous abortion. Women who consume alcohol during pregnancy a few times a week had 3 times the odds of spontaneous abortion than those who consumed alcohol on special occasions. In agreement with our study, a cross-sectional study conducted in Gahanna shows women who drink alcohol had 2.89 odds of spontaneous abortion than those who didn't drink alcohol(39). This finding is also supported by the qualitative finding; the study participant believes that alcohol drinking during pregnancy can cause spontaneous abortion. This finding might indicate to facilitate counseling of mothers on alcohol drinking during pregnancy through ANC follow up.

Furthermore, in our study women who intake traditional medicine during pregnancy had an 8 times higher risk of spontaneous abortion than those who didn't take any traditional medicine during pregnancy. This finding was supported by the qualitative finding in our study. The study participants think women who take traditional medicine during pregnancy can be exposed to spontaneous abortion.

6.1 Strength and limitation of the study

6.1.1 Strength

The strength of the study includes the use of a mixed-method study design that shows the relationship between intimate partners during pregnancy and spontaneous abortion. The high response rate of 98% is also another strength of the study. The use of the WHO standard questionnaires' was also one of the strengths. Furthermore, this study is so far the first local study, which attempted to show the relationship between intimate partner violence and spontaneous abortion.

6.1.2 Limitation

There are some limitations of the study; first, the study design we used is prone to recall bias. Even though; the recall bias is low in the case group due to the low gestational age (28 weeks) the control group had a higher recall bias. Second due to the sensitiveness of the topic; response to intimate partner violence during pregnancy still might be under-reported. Another possible limitation could have been that induced abortion might be missed diagnosed as spontaneous abortion which may result in overestimating the result. Hence, the result of this study should be interpreted by acknowledging those potential limitations.

7. Conclusion

In summary, our study showed that spontaneous abortion is significantly associated with exposure to any form of intimate partner violence and physical intimate partner violence during pregnancy. Moreover, the study revealed that spontaneous abortion also had a significant association with maternal age, inter-pregnancy interval, traditional medicine intake during pregnancy, and frequent alcohol intake during pregnancy. The most common consequence of IPV mentioned by our study participants was disability, depression, divorce, and losing their pregnancy. Most mothers in our study believe there was a relation between spontaneous abortion and IPV through physical beaten up, sadness, and stress. Furthermore; only one participant manages intimate partner violence that had a spontaneous abortion by linking them with social workers and the women affairs office.

8. Recommendation

For policymakers or health programmers

- ❖ Since the ministry of health does not have a focal team on intimate partner violence, we recommend policymakers to integrate care for intimate partner violence into maternal health service rather than a stand-alone service that provides support.
- ❖ We recommended policymakers and programmers to either train health care providers that provide spontaneous abortion care on intimate partner violence to provide emotional and social support or provide an appropriate link with social workers.
- ❖ We recommend policymakers to strengthen the implementation of the legal framework on intimate partner violence.
- ❖ We also recommended health care programmers strengthen create awareness about intimate partner violence in the community.

Health care professionals

- ❖ We recommended Health care providers to identify and counsel mothers about intimate partner violence when assessing spontaneous abortion patients.
- ❖ We recommended Health care providers to counsel pregnant mothers about the harm of drinking alcohol, short inter-pregnancy interval, and traditional medicine intake during pregnancy.

Researchers

- ❖ We recommend researchers and the scientific community to show the relationship between intimate partner violence and spontaneous abortion by doing prospective study design with multiple health facilities which can approximate to show the association.

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10. ANNEX

10.1 PARTICIPANT INFORMATION SHEET

Dear participants

My name is I am here on the behalf of Ms. Helen Teweldebrhan who is a master's student in Addis Ababa university school of public health in the department of reproductive health. She is working on her thesis on the effect of maternal intimate partner violence during pregnancy on spontaneous abortion. Before this, I will be explaining information about the study and requesting you to participate in the study.

Purpose: To identify the effect of maternal Violence during pregnancy on spontaneous abortion.

Benefit: This study will help to know the effect of maternal Violence during pregnancy and for improving the health of victim mothers during pregnancy furthermore to prevent spontaneous abortion and the consequence of spontaneous abortion. Mothers with violence victims will be linked to the psychiatric clinic for more counseling and care.

Harm: The study will take the time of you and may have a little discomfort while remembering the occasion happening to you but does not have any risk.

Confidentiality and right of participant: All the responses given by you and the results obtained will be kept confidential using the coding system whereby no one will have access to your response. Without permission from you and the legal body, any part of this study will not be disclosed to the third person. You are not expected to give your name or phone number. Your participation in this research is voluntary. You have full right to refuse a question that you don't want to answer and withdraw from the participation at any time if you don't wish to continue. There will not be any negative consequences and benefits because of participating and not participating in the study. However, your participation in this study is very important for the achievement of the study. We hope you will participate in the study for the sake of the benefit of the research result.

Duration of the interview: This interview will take approximately 30 – 40 minutes.

- You can ask any questions during the interview.
- Have you any question regarding the aim and content of the interview?

- Are you willing to participate in the study? If you are willing to participate in this study, please sign the agreement form

Address: Mob +251-9-67-90-20-00 or E-mail: helentewelde13@gmail.com

10.2 INFORMED CONSENT

I have read this form or it has been read to me in the language I understand. I understand that I can discontinue the interview without any problem. Therefore

- 1) I agree to participate
- 2) I refuse to participate

If the participant agrees to participate, skip to the next page.

If no, skip to the next participant by writing short reasons for refusal below.

.....

Name of the investigator: Helen Teweldebrhan

Address: Mob +251-9-67-90-20-00

E-mail: helentewelde13@gmail.com

Supervisor address Tel

Date of interview

Time started:

Time completed:

Name of data collector.....

Checked by:

Supervisor Name: Sig.....

10.3 English version Questionnaire

Assessment of the relationship between intimate partner violence during pregnancy and spontaneous abortion among mothers who attended MCH service in Adigrat general hospital, Adigrat town, Tigray region, northern Ethiopia, 2020

Contact address of the Principal investigator: helentewelde13@gmail.com

Cell phone: +251967902000

Identification related information

Questionnaire Code No----- MRN: _____

Study participants 1. Case: _____ 2. Control: _____

Part I: socio-demographic information

Id code	Question	Code of variables	Skip
101	How old are you in completed years?	_____ in complete years	
102	What is the type of place of residence?	1. Urban 2. Rural	
103	What is your current marital status?	1. married /live together/ 2. divorced/ separated 3. widowed 4. single	If not married(2,3) go to Q106 If single go to Q108
104	Is your (husband/partner) living with you now or is he staying elsewhere?	1. Living with her 2. Elsewhere	
105	Does your (husband/partner) have another wife or does he live with other women as if married?	1. Yes 2. No 3. I don't know	
106	Who decided on your first marriage?	1. Herself	

	Remark: multiple answers is possible	2. Parents 3. Other family members 4. Other (specific....	
107	How old were you when you have your first Marriage?	_____ in complete years	
108	What is your religion?	1. Orthodox 2. Catholic 3. Protestant 4. Muslim 5. Traditional 6. Other(specify)_____	
109	Can you read and write?	1. Yes 2. No	If No go to Q111
110	What was the highest level of education you have attained?	Grade_____(Write) Informal_____(Tick)	
111	Does your husband or partner read and write?	1. Yes 2. No	If No go to Q113
112	What was the highest level of education your husband/partner has attained?	Grade_____(Write) Informal_____(Tick)	
113	What is your main occupation? Remark: main occupation here refers to income	1. Housewife 2. Farmer 3. merchant 4. Government employee 5. NGOs employee 6. Daily laborer 7. Others (Specify)_____	
114	What is your husband's main Occupation?	1. Farmer 2. merchant	

	Remark: main occupation here refers to income	3.Government employee 4. NGOs employee 5. Carpentry/Braider 6.Others (Specify)_____	
115	What is your household annual income on Average? Remark: income all sources/ from all members	_____(in Ethiopian birr)	

Part II: maternal reproductive and Medical conditions

Id code	Questions	Code of variables	Skip
201	How many times have you become pregnant including the current pregnancy? (Gravidity) Remark: the minimum is one	_____ in number	If one goes to Q207
202	How many live births did you ever have? (parity)	_____ in number	
203	What is the birth interval between the current pregnancy and the previous pregnancy? Remark: if she has forgotten the pregnancy interval refers to the date of the current marriage	_____ In completed months	
204	Have you ever had a previous history of miscarriage or abortion?	1.yes 2.No	If no Skip to 206
205	If your answer is yes for Q204, which one of the following?	1.spontaneous abortion 2.induced abortion 3.both	
206	Do you have a History of CS delivery, that is, did	1.yes	

	they cut your belly open to take the baby out?	2.No	
207	During this pregnancy, did you take any drugs that aren't prescribed by a healthy person?	1.yes 2.No	
208	During this pregnancy, did you take any traditional medicines?	1.yes 2.No	
209	Did your mother have a history of spontaneous abortion?	1.yes 2.No	
210	Do you have a family history of DM?	1.yes 2.No	
211	Are you diagnosed with DM?	1.yes 2.No	
212	Are you diagnosed with HTN?	1.yes 2.No	
213	Are you diagnosed with any Cardiac diseases?	1.yes 2.No	
214	Do you have any one of the following symptoms during current pregnancy; vaginal discharge, itching sensation, dysuria, vaginal ulcer, and lower abdominal pain?	1.yes 2.No	If No go to Q301
215	If yes to Q214, did you get treatment?	1.yes 2.No	

Part III: risk behavioral conditions

Id code	Questions	Code of variables	Skip
301	Have you ever chewed Khat?	1.yes 2.no	If no Skip to Q304
302	If yes Q301, Have you chewed Khat in the current pregnancy?	1.yes 2.No	

303	How often do you chew khat?	<ol style="list-style-type: none"> 1. Every day 2. 5-6 days a week 3. 3-4 days a week 4. 1-2 days a week 5. 2-3 days a month 6. Once a month or less 	
304	Have you ever smoked cigarettes?	<ol style="list-style-type: none"> 1.yes 2.no 	If no Skip to Q308
305	If yes Q304, Have you smoked cigarettes in the current pregnancy?	<ol style="list-style-type: none"> 1.yes 2.No 	
306	How often did you smoke cigarettes?	<ol style="list-style-type: none"> 1. Every day 2. 5-6 days a week 3. 3-4 days a week 4. 1-2 days a week 5. 2-3 days a month 6. Once a month or less 	
307	On average, how many cigarettes do you smoke per day?	_____ number of cigarettes	
308	Do you currently smoke or use any other type of tobacco?	<ol style="list-style-type: none"> 1. Yes 2. No 	If No go to Q310
309	What other types of tobacco do you currently smoke or use?	<ol style="list-style-type: none"> 1. Pipe 2.chewing tobacco 3.snuff/suret 4.shisha 5.gaya 6.other 	
310	Have you ever taken a drink that contains alcohol (Tella/Tegi/Areke/Beer/Wine, etc...)?	<ol style="list-style-type: none"> 1.yes 2.No 	If no Skip to Q313

311	If yes Q308 Have you drink any Alcohol in the current pregnancy?	1.yes 2.No	If No go to Q313
312	During the current pregnancy, how often did you take a drink that contains alcohol?	1.Every day 2.3-5 times a week 3. once a week 4. only on a weekend 5. on special occasions	
313	Does your husband chew Khat?	1.Yes 2.No 3. I don't know	If No Skip to Q315
314	If yes Q313How often does he chews khat?	1. Every day 2. 5-6 days a week 3. 3-4 days a week 4. 1-2 days a week 5. 2-3 days a month 6. Once a month or less	
315	Does your husband smoke cigarettes?	1.Yes 2.No 3. I don't know	If No Skip to Q317
316	If yes Q315, How often does he smokes a cigarette?	1. Every day 2. 5-6 days a week 3. 3-4 days a week 4. 1-2 days a week 5. 2-3 days a month 6. Once a month or less	
317	Does your husband drink Alcohol?	1.Yes 2.No	If No Skip Q 319

318	If yes Q317, How often does (did) he get Drunk?	1. Every day 2. 3-5 times a week 3. once a week 4. only on a weekend 5. on special occasions	
319	What is your relationship with the head of the household?	1. Husband 2. Self 3. Parents	
320	Who should decide on health care matters in your family?	1. Husband 2. Wife 3. Elderly 4. Both wife and husband	
321	Is there a social norm that supports wife violating (that is physical, emotional, and sexual violence) in your community?	1. Yes 2. No	

Know I will read you the following statements and please answer by selecting the numbers that best apply to you.

322	I Can count on my partner for financial assistance when I need it during pregnancy.	0. Strongly disagree 1. Disagree 2. Agree 3. Strongly agree	
323	My partner takes care of me during pregnancy.	0. Strongly disagree 1. Disagree 2. Agree 3. Strongly agree	
324	My partner will help me during postpartum.	0. Strongly disagree	

		1. Disagree 2. Agree 3. Strongly agree	
325	My partner understands all my feelings during pregnancy.	0. Strongly disagree 1. Disagree 2. Agree 3. Strongly agree	
326	I count on my partner that he will be there when I need him during pregnancy.	0. Strongly disagree 1. Disagree 2. Agree 3. Strongly agree	

Part IV: The three components of intimate partner violence during pregnancy:

READ TO THE RESPONDENT:

When two people marry or live together, they usually share both good and bad moments. I would now like to ask you some questions about your current relationship and how your husband or partner treats you. Let me assure you that your answers are completely confidential and will not be told to anyone and no one else will know that you were asked these questions. If I ask you any question you don't want to answer, just let me know and I will go on to the next question. May I continue?

Section-1: Emotional violence during recent pregnancy:

Id code	Questions	Code of variables	Skip
401	Have you ever been insulted by your husband or partner using abusive language that made you feel bad about yourself during the current pregnancy?	1.Yes 2.No	

402	Has he belittled or humiliated you in front of other people during the current pregnancy?	1.Yes 2.No	
403	Has he done things to scare or intimidate you on purpose during the current pregnancy?	1.Yes 2.No	
404	Have you ever been threatened by your husband or partner with an object such as a stick, belt, knife, gun, or another type of weapon, etc. during the current pregnancy?	1.Yes 2.No	
405	Does your husband or partner has been tried to harm or injured anything or anyone you love during the current pregnancy?	1.Yes 2.No	
406	How often did any of the above offenses happen to you in the current pregnancy?	1.Every day 2. At least once per week 3. At least once per month 4. Once during the pregnancy period 5. Not at all	

Section –2: Physical violence during pregnancy:

Id code	Questions	Code of variables	Skip
501	Has he slapped you or thrown something at you that could hurt you during the current pregnancy?	1. Yes 2. No	
502	Has he Push or shoved you, or shake your hands during the current pregnancy?	1. Yes 2. No	
503	Has he Punch or hit you with his fist, or twist your arm, or with something that could hurt you during the current pregnancy?	1. Yes 2. No	

504	Has he Kicked you, drag, or beaten you during the current pregnancy?	1.Yes 2.No	
505	Has he tried to attack you with a knife, gun, or another type of weapon during the current pregnancy?	1.Yes 2.No	
506	Have you been scalded or burnt purposefully by your husband or partner during the current pregnancy?	1.Yes 2.No	
507	Has he punched or kicked in the abdomen in the current pregnancy?	1.Yes 2.No	
508	Did you have any visible bruises, scars, bites, eye injuries, swelling, and any sign of injury happening during the current pregnancy?	1.Yes 2.No	
509	How often did any of the above offenses happen to you during the current pregnancy?	1. Every day 2. At least once per week 3. At least once per month 4. Once during the pregnancy period 5. Not at all	

Section-3: Sexual violence against pregnant women related questions:

Id code	Questions	Code of variables	Skip
601	Have you ever physically forced by your husband to have sex when you did not want to during the current pregnancy?	1.Yes 2.No	
602	Did you ever have sexual intercourse when you didn't want because you were afraid of what he might do during the current pregnancy?	1.Yes 2.No	

603	Has he forced you to do something sexual that you found degrading or humiliating during the current pregnancy?	1.Yes 2.No	
604	How often did any of the above offenses happen to you in the current pregnancy?	1. Every day 2. At least once per week 3. At least once per month 4. Once during the pregnancy period 5. Not at all	

Thank you very much for your valuable time.

Part V: Questions to be filled from medical records or by Measurement

Id code	Questions	Code of variables	Skip
701	What is your Gestational age? (Based on LMNP or see a card for physician Diagnosis)	_____ (put in completed weeks)	
702	What is the MUAC of the mother Remark: measure MUAC	_____ (in centimeters)	
703	What is the current BP of the mother?	Measure or see card _____//_____mmHg	
704	What is the current serostatus of the mother?	1. R 2. NR	

Data collector's Name: _____ Signature: _____ Date _____

Supervisor's Name: _____ Signature: _____

10.4 In-depth interview guide (English version)

10.4.1 Percipients information sheet for the qualitative design

I want to thank you for taking the time to meet with me today. My name is Ms. Helen Teweldebrhan who is a master's degree student at Addis Ababa University School of Public Health in the department of Reproductive, Family, and Population Health.

I have to research partial fulfillment for the Master's Degree. The title of my project is "THE ASSOCIATION OF INTIMATE PARTNER VIOLENCE DURING PREGNANCY AND SPONTANEOUS ABORTION IN ADIGRAT GENERAL HOSPITAL, Tigray REGION, and NORTHERN ETHIOPIA". I would like to ask you about your opinions, beliefs, and thoughts towards intimate partner violence (IPV) during pregnancy and your understanding of its relationship with spontaneous abortion and remedial to avert it. The information you are sharing will be used to design appropriate strategies and programs to fight IPV and enhance maternal and child health in the study region in particular and the country at large.

The interview would not take more than an hour. I will be taping the session because I don't want to miss any of your opinions and suggestions and understand the issue very well. My project assistant will also take some notes during the session. I will assure you that the information will be shared with a third person and it is compiled in aggregate during the report. Your identifiers will be used during reporting. Moreover, the interview will be conducted in a private setting where no one except the research team and you has access. After transcriptions are thoroughly done the audiotapes will be deleted. Remember, you don't have to talk about anything you don't want to and you may end the interview at any time.

Do you have any questions on what I explained above? If there are more questions you would like to ask my contact details are:

Helen Teweldebirhan, Email: helentewelde13@gmail.com; Tele: +251-9-67-90-20-00

Are you willing to participate in the study? If you are willing to participate in this study, please sign on to the agreement form.

10.4.2 INFORMED CONSENT FORM

I have read the information sheet or it has been read to me in the language I understand. I asked questions and they have elaborated to me the detail I wanted and I knew that I can discontinue the interview at any time without any problem. Therefore

1) I agree to participate -----

2) I refuse to participate-----

Name of the investigator: Helen Teweldebrhan

Address: Mob +251-9-67-90-20-00

E-mail: helentewelde13@gmail.com

Date of interview

Time started:

Time completed:

Name of interviewer.....Sig.....

10.4.2 Interview guide for participants

In this community and elsewhere, people have different understandings of how men should act towards their wives or regular sexual partners. I am going to ask you a set of questions and I would like you to tell me your opinion on those questions. There is no right or wrong answer. Please give us an honest answer to each question.

Background characteristics of participants

No	Questions
1	How old are you in completed years?
2	Where is your place of residence?
3	What is your current marital status?
4	What is your religion?
5	What was the highest level of education you have attained?
6	What was the highest level of education your husband/partner has attained?
7	What is your main occupation?

Opinion on IPV

1. How do you see the issue of intimate partner violence (physical, emotional, sexual, and/or neglect related violence on regular sexual partners/wives)? What do you understand by physical, emotional, sexual, or neglect? Give me some examples. What are the types of IPV that are frequently committed? What are the consequences of each type of IPV?
2. Why do you think people commit IPV?

Probes:-

- Reasons for IPV
 - Who are the main perpetrators of IPV (male or female)
3. What is the feeling of the community towards IPV? The feeling of men? Women? Youth? Elderlies? Religious leaders? Political leaders?

4. Are there community norms that facilitate or fight against IPV in this area? When there is IPV how is it managed in the community?

Probes:-

- Negotiations
- Silence
- Legal/accusing/charging case

Understanding towards prevention of spontaneous abortion

1. What does spontaneous abortion mean to you?
 - Contextual meaning
 - Consequences spontaneous abortion
2. How could spontaneous abortion happen?
 - Causes of spontaneous abortion
3. Tell us your understanding of the relationship between IPV and the occurrence of? Do you know an instance whereby a violated woman had a spontaneous abortion? Please describe it
4. How could spontaneous abortion be prevented? What should be done to avoid IPV especially when women are pregnant? What should be done to make men support their sexual partners during pregnancy?

10.4.3 Interview guide for the health care provider and focal person

A. Baseline characteristic of a health care provider

1. Sex
2. age
3. profession
4. year of experience in MCH clinic

B. Question on intimate partner violence for a health care provider

1. What is your view on intimate partner violence?

Probes:-

- Meaning of IPV
- Types of IPV frequently committed

2. What are the risk factors for intimate partner violence?

Probes:-

- Reasons for IPV
- Who are the perpetrators of IPV (male or female)

3. What are the consequences of intimate partner violence?

4. Did you encounter a woman having a spontaneous abortion due to IPV? Please describe it. When? How did it happen? How did you manage the abortion? Where there any other health consequences?

C. Question on intimate partner violence for the focal person for MCH in the zonal health department

1. What IPV strategies, programs, and interventions are implementing?

Probes:-

- Please list?

2. Were there some barriers to implementing those strategies, programs, and innervations?

Probes:-

- Please list?
- What about the existed barriers?

3. What recommendations do you have for future efforts to strengthening those strategies, programs, and interventions?

10.4.4 Closing for the interview

After the main questions are asked the interview will be closed using the following words.

- Is there anything more you would like to add?

Thank you for your time.

10.5 Codebook of the qualitative approach

Theme 1: perceptions' towards intimate partner violence		
Category 1: understanding of IPV	Category 2: Strategy, programs, and interventions on IPV	Category 3: Management of IPV
<p>1. Meaning of IPV:</p> <p>Codes:</p> <ul style="list-style-type: none"> • Argument • Beating • decisions making • Hit • Humiliated • Insulting • no peace • Rape • Swearing • Threats 	<p>1. Prevention methods</p> <p>Codes:</p> <ul style="list-style-type: none"> • advice health professional • awareness • communication • job opportunities • media • collaboration • monitoring & evaluation • provide help • Training • women developmental groups 	<p>1. Health care management of IPV</p> <p>Codes:</p> <ul style="list-style-type: none"> • admitted • antibiotics • medical attention • MVA • psychological counseling • social committee • women's affairs
<p>2. Types of IPV</p> <p>Codes:</p> <ul style="list-style-type: none"> • Beating • Controlling • Insulting • Rape 	<p>2. Challenges</p> <p>Codes:</p> <ul style="list-style-type: none"> • don't pursue till end • fear • pride 	<p>2. Society management of IPV</p> <p>Codes:</p> <ul style="list-style-type: none"> • divorce • negotiation • patience • reconcile • suing
3. Cause of IPV	Recommendation	Legal management of IPV

<p>Codes:</p> <ul style="list-style-type: none"> • alcohol • argument • backwardness • dependence • disagreement • dishonesty • doing wrong • habit • inequality • jealousy • joblessness • misunderstanding • money problem • saying facilitate IPV • Smoking • talking back • uneducated 	<p>Codes:</p> <ul style="list-style-type: none"> • awareness • collaboration • monitoring & evaluation • training • women developmental groups 	<p>Codes:</p> <ul style="list-style-type: none"> • arrest overnight • cause • court • divorce • elderly • solution
<p>The consequence of IPV:</p> <p>Codes:</p> <ul style="list-style-type: none"> • affect children • APH • Death • Depression • Disability • Divorce 		

<ul style="list-style-type: none"> • economical problem • endangered • HIV • Injury • Insecurity • lose baby • poor self-esteem • preeclampsia • preterm labor • stress • unwanted pregnancy 		
<p>Theme 2: understanding toward prevention of spontaneous abortion</p>		
<p>Category 1: understanding of spontaneous abortion</p>	<p>Category 2: Relation of spontaneous abortion and IPV</p>	<p>Category 3: prevention of spontaneous abortion</p>
<p>Meaning of spontaneous abortion</p> <p>Codes:</p> <ul style="list-style-type: none"> • fetus dies • lose the baby • naturally • not carry fetus • unwilling 	<p>Codes:</p> <ul style="list-style-type: none"> • beating • not related • sadness • stress 	<p>Codes:</p> <ul style="list-style-type: none"> • balance food • can't prevent • less anger • medical guidance • not lifting heavy things • not wear traditional medicine • prenatal advice • regular checkup
<p>Cause of spontaneous abortion</p> <p>Codes:</p>		

<ul style="list-style-type: none"> • anger • beating • carrying heavy things • chronic disease • drink alcohol • health problems • naturally • not check-up • sadness • stress • tie traditional medicine • traditional medicine • unmatched blood 		
<p>The consequence of spontaneous abortion</p> <p>Codes:</p> <ul style="list-style-type: none"> • anemia • bleeding • depression • discomfort • guilt • infection • pain • Abused 		
<p>Theme 3: perception of mothers toward partner support during pregnancy</p>		
<p>Category partner support during pregnancy</p>		

Codes:

- accompany to checkup
- fulfilling her needs
- help carrying heavy things
- listen to her opinion
- understand her filling
- help housework

10.5 Tigrigna Version Questionnaires (ናይ ትግርኛ መሓተት)

ናይ ፅንዓት ርእሲ፡ ኣብ ግዚ ጥንሲ ኣዲታት ብዝተገጸሙ ሙጥቃዕቲ ዝተልዓለ ኣብ ጥንሲ ምንጻል ዘለዎ ተፅዕኖ ኣብ ዓዲግራት ሓፈሻዊ ሆስፒታል፣ ትግራይ ሽልል፣ 2012

7.5.1 ናይቲ ፅንዓት ተሳተፍቲ መረዳኣታ ወይም ናይ ስምምዕ ሰነድ

7.5.1.1 ናይቲ ፅንዓት ተሳተፍቲ መረዳኣታ ሰነድ

ጥዕና ይሃበለይ ስመይ----- ይበሃል፣ ኣብዚ ዝተረከብኩሉ ምክንያት ንወ/ሪት ሄለን ተወ/ብርሃን ወኪለ ኣንትኮን፣ ንሳ እውን ኣብ ኣዲስ ኣበባ ዩንቨርሲቲ ብሕብረተሰብ ጥዕና ካልኣይ ዲግሪ ብምምሃር ትርከብ። ናይዚ ትምህርቲ ኣካል ዝኮነ ፅንዓት ዝግበር ኣንትኮን ኣዚም ኣብ ኣዲታት ጥንሲ ጊዜ ኣንከለዎ ብበዓል ሓዳረን ዝበፀሐን ሙጥቃዕቲ ዝተልዓለ ኣብ ጥንሲ ምንጻል ዘለዎ ተፅዕኖ የፅንዕ። ስለዝኮነም ብቅድምያ ስለኣቲ ፅንዓትን ዘለወን ድርሻ ከምዝስዕብ ብምብርህራህ ክጅምር እዩ።

ናይዚ ፅንዓት ዕላማ፡- ኣብ ኣዲታት ጥንሲ ጊዜ ኣንከለዎ ብበዓል ሓዳረ ንዝበፀሐን ሙጥቃዕቲ ዝተልዓለ ኣብ ጥንሲ ምንጻል ዘለዎ ተፅዕኖ ኣንታይምካኑ ንምፍላይ።

ናይዚ ፅንዓት ጥቅሚ፡- ናይዚ ፅንዓት ውፅኢት ኣብ ኣዲታት ዝበፀሐን ሙጥቃዕቲ ዝተልዓለ ዝፍጠር ናይ ጥዕና ምስኣንን ጥንሲ ምንጻልንን ምቅናስ ዝጠቅም ይከውን። ንሰን ኣውን ናይዚ ፅንዓት ተሳታፊት ብምካን ዝዓበዩ ኣስተዋፅኦ ይገብራ። ኣብ ግዜ መሕተት ዘጋጠመን ችግር ኣንተሃልዩ ባቲ ናይቲ ሆስፒታል ስነ-ልቦና በዓል ሞያ ሓገዝ ክግበረሉን ኣዩ።ካብዚ ወፃኢ ምንም ዓይነት ናይ ገንዘብ ኮነ ካልኣ ዝርከበሉ ጥቅሚ የለን።

ናይ መጉዳኣቲ ስግኣት፡- ናይዚ ፅንዓት ኣካል ብምካንን ምንም ዓይነት ጉድኣት ኣይብፀሐንን። ምናልባት ነገራት ኣብዘስታውሳሉ ሰዓት ደስ ዘይብል ትውስታ ክርብሻን ይክኣል ይኮን፣ ካብዚ ብተወሳኪ ሕቶታት ንምምላስ ካብ 30-40 ደቂቃ ዝኣክል ክወስደለን ይክኣል ኣዩ።

ናይዚ ፅንዓት መረዳኣታ ሚስጥራዊነት፡- ንሰን ዝህበኦ መረዳኣታ ኩሉ ብሚስጢር ዝተሓዘን ንሳልሳይ ወገን ተመሓላፊ ኣይወሃብን። ስምክን ይኩን ስልኪ ቁፅርክን ኣይምዝገብን።

ናይዚ ፅንዓት ተሳተፍቲ ሞሰል:- ኣብዚ ፅንዓት ዝሳተፋ ብናይ ባዕለን ፍቓድ ጥራሕ ኣይ። ኣብዚ ፅንዓት ኣንትሳተፋ ምምላስ ዘይደልዩኦ ሕቶ ኣንትሃልዩ ምዝላልን ከምኡውን ብዝደለዩኦ ሰዓት ትፅንዓት ኣቃሪፅን ምውፃእ ሞሰለን ዝተሓለወ ኣይ።

ጥያቄ ተሃልይዎን ኣብ ዝኮነ ሰዓት ምጥያቅይ ክኣለኣዩን። ከምኡውን ካብዚ ብታሕቲ ዝግለፅ ኣድራሻ ኣቲ ፅንዓት ትገብር ምንግጋር ይክኣለ ኣዩን። ስለዚ ካብዚ ንላዕሊ ዝተገለፀ ሓሳባት ኣብ ግንዛቤ ብምኣታው ኣብቲ ፅንዓት ብምስታፍ ዘለዎን ውሳኔ ካብዚ ዝቅፅል ዘሎ ፎርም ንክገልፃለይ ብትሕትና ይሓትት።

ኣቲ ፅንዓት ትገብር ስም:- ሄለን ተወ/ብርሃን ሃይሉ
ኣድራሻ:- ስልኪ ቁፅራ:- +251967902000
ኤሜል:- helentewelde13@gmail.com

10.5.1 ናይ ስምምዕነት መውሃቢ ፎርም

ካብዚ ብላዕሊ ዘሎ መረዳኦታ ኣንቢቦ ብዝርደኣኒ ቋንቋ ተገሊፅለይ፣ ናይዚ ፅንዓት ዕለማ፣ ጥቅሚ፣ ጉድኣትን ሚስጥራዊነትን ዝተረዳኣኩ ኣንትኮን ኣብቲ ፅንዓት ንምስታፍ ኣውን ብናይ ባዕለይ ውሳኔን ድሌትን ብዝስዕብ የርኢ ኣለኩ።

- 1. ኣብቲ ፅንዓት ንክሳተፍ ወሲነ ኣለኩ-----
- 2. ኣብቲ ፅንዓት ንክይሳተፍ ወሲነ ኣለኩ-----

ኣቲ ፅንዓት ትገብር ስም:- ሄለን ተው/ብርሃን ሃይሉ
 ኣድረሻ:- ስልኪ ቁፅሪ:- +251967902000
 ኤሜል:- helentewelde13@gmail.com

ኣዚ መሕተት ዝተገበረሉ ዕለት-----

ናይ ዝተገበረሉ ሰዓት----- ናይ ዝተወዳኣሉ ሰዓት -----

ናይ መረዳኦታ ሰብሳቢ ስም-----

ናይ ፅንዓት ተቆፃፃሪ ስም-----

ፊርማ-----

10.5.2 ናይ ትግርኛ መሕተት

ናይ ፅንዓት ርእሲ፡ ኣብ ግዚ ጥንሲ ኣዴታት ብዝተገጸሙ መጥቓዕቲ ዝተልዓለ ኣብ ጥንሲ ምንፃል ዘለዎ ተፅዕኖ ኣብ ዓዲግራት ሓፈሻዊ ሆስፒታል፣ ትግራይ ክልል፣ 2012

ኣቲ ፅንዓት ትገብር ስም፡- ሄለን ተወ/ብርሃን ሃይሉ

ኣድረሻ፡- ስልኪ ቁፅሪ፡- +251967902000 ኤሜል፡- helentewelde13@gmail.com

ናይ ፅንዓት መሓተዊ ቅጥዒ

ናይ መረዳኣታ ሰብሰቢ ስም-----ፊርማ-----ዕለት-----

ናይ ፅንዓት ተቆፃፃሪ ስም-----ፊርማ-----ዕለት-----

ናይ መሕተት ኮድ----- ናይ ኣዶ ካርዲ ቁፅሪ-----

ናይቲ ፅንዓት ተሰተፍቲ 1. Case ----- 2. Control -----

ክፍሊ ሓደ፡- ናይ ኢኮኖሚያዊን ማሕበራዊን ኩነታት ዝተመልከተ ሕቶታት

ታ.ቁ	ሕቶታት	ናይ ሕቶታት መልሲ	ይዘለል
101	ዕድመኡን ብምሉእ ዓመት ክንደይ ኣዩ?	----- (ብዓመት)	
102	ኣበይ ቦታ ኣዩን ዝነብራ?	1. ከተማ 2. ገጠር	
103	ኩነታት ሓዳርን ኣንታይ ይመስል?	1. ሓዳር ዝገበራ 2. ዝፈትሓ 3. በዓል ገዝኣን ብሞት ዝተፈለየን 4. ሓዳር ዘይገበራ	እንድሕር መልሰን 2፣3 ኮይኑ ናብ ታ.ቁ106 4 ተኮይኑ ናብ ታ.ቁ108ይኪዱ
104	በዓል ገዝኣን ወይም መፃምደን ምስኣን ድዩ ዝነብር ወይስ ኣብካሊእ?	1. ምስኣን 2. ኣብካሊእ	
105	በዓል ገዝኣን ወይም መፃምደን ካሊእ ሰበይቲ ወይም ሓዳር ኣለዎ ድዩ?	1. እወ 2. ኣይፋሉን	

106	ንመጀመርታ ግዚ ሓዳር ክገብራ ከለዎ ሓዳር ንምግባር መን ወሲንልክን?	<ol style="list-style-type: none"> 1. ባዕለን 2. ወለደን 3. ካሊእ ናይ ቤተሰብ ኣባል 4. ካሊእ(ይገለፅ)----- 	
107	መጀመርታ ሓዳር ክገብራ ከለዎ ዕድመኡን ክንደይ ነይሩ?	-----(-ብዓመት)	
108	ናይ ምንታይ ሃይማኖት ተከታሂት ኣየን?	<ol style="list-style-type: none"> 1. ኦርቶዶክስ 2. ኮተሊክ 3. ሙስሊም 4. ፕሮቴስታንት 5. ካሊእ(ይገለፅ)----- 	
109	ምፅሓፍን ምንባብን ይክኣሉ ዶ?	<ol style="list-style-type: none"> 1. ኣወ 2. ኣይፋሉን 	እንድሕር መልሰን 2 ኮይኑ ናብ ታ.ቁ111 ይኪዱ
110	ክሳብ ክንደይ ደረጃ ትምህርቲ ተማሂረን?	<ol style="list-style-type: none"> 1. ክፍሊ-----(-ይፅሓፍ) 2. መደበኛ ዘይኮነ----- (ምልክት ይገበር) 	
111	በዓል ገዝኡን ምንባብን ምፅሓፍን ይክኣሉ ዶ?	<ol style="list-style-type: none"> 1. ኣወ 2. ኣይፋሉን 	እንድሕር መልሰን 2 ኮይኑ ናብ ታ.ቁ113 ይኪዱ
112	በዓል ገዝኡን ዝበፀሕዎ ደረጃ ትምህርቲ ክንደይ ኣዩ?	<ol style="list-style-type: none"> 1. ክፍሊ-----(-ይፅሓፍ) 2. መደበኛ ዘይኮነ----- (ምልክት ይገበር) 	
113	ዋና ስራሕን ኣንታይ ኣዩ? ኣሰታውስ: ዋና ስራሕን ኣብዚ ብዝረክቡኦ እቶት	<ol style="list-style-type: none"> 1. ኣብ ገዛት ውኣል 2. ሓራስታይ 3. ነጋዲት 	

	እዩ ዝግለፅ።	4. መንግስቲ ሰራሕተኛ 5. መንግስቲ ዘይኮነ ድርጅት 6. ናይ መዓልታዊ ስራሕ 7. ካሊኦ (ይገለፅ)-----	
114	ናይ በዓል ገዝአን ዋና ስራሕ ኣንታይ ኣዩ? አሰታውስ፡ ዋና ስራሕን ኣብዚ ብዝረክበኦ እቶት እዩ ዝግለፅ።	1. ሓራስታይ 2. ነጋዲት 3. መንግስቲ ሰራሕተኛ 4. መንግስቲ ዘይኮነ ድርጅት 8. ሃናዒ/ መዓልታዊ ስራሕ 5. ካሊኦ (ይገለፅ)-----	
115	ማኣካላይ ናይ ቤተሰብን ዓመታዊ አቶት ክንደይ ኣዩ? አሰታውስ፡ እቶተን ካብኩሉ ምንጩን ኩሎም ኣባላት ስድራ እዩ።	----- (ብ ኤትዮጵያ ቅርሺ ይገለፅ)	

ክፋሊ ክልተ፡- ናይ ጥንስን ወሊድን ከምኡውን ጠቅላላ ናይ ጥዕና ኩነታት ዝምልከት ሕቶታት

ታ.ቁ	ሕቶታት	ናይ ሕቶታት መልሲ	ይዘለል
201	ኣብ ዕድመኣን ምሉእ ናይ ሓዚ ጥንሲ ሓዊሱ ክሰብ ሓዚ ክንደይ ጊዘ ጠኒሰን ነይረን? አሰታውስ፡ ዝታሓተ ቁፅሪ ሓደ እዩ።	_____ ብቁ ፅሪ	እንድሕር መልሰን 1 ከይኑ ናብ ታ.ቁ207 ይኪዱ
202	ክንደይ ቆልዑ ምስ ሂወቶም ወሊደ ን?	_____ ብቁ ፅሪ	
203	እዚ ናይ ሓዚ ጥንሲ ኣብ ክንደይ ወርሒ ኣፈላላይ ኢኪን ጠኒስኪን ምስ ናይ ቅድሚ ሓዚ ብምንፅፃር?	1. _____ ብአዋርሕ	
204	ቅድሚ ሓዚ ምንፃል ኣጋጢሙክን ወይ ጥንሲ ኣውራድክን ይፈልጥ ዶ?	1. እወ 2. ኣይፋሉን	ኣይፋሉን ተኮይንኑ ናብ ታ.ቁ

			206 ይዘላል
205	ናይ ላዕላዎይ ሕቶ መልሲ እወ እንተኮይኑ ፣ ካብ እዞም ተዘርዚሮም ዘለዉ መኒኡ እዩ?	1. ምንፃል ጥንሲ 2. ጥንሲኣ ውራድክን 3. ክልትኡ	
206	ቅድሚ ሐዚ ቢመጥባሕቲ ማለት እውን ከብደን ጠቢሖም ኣዋሊዶምን ይፈልጡ ዶ?	1. እወ 2. ኣይፋሉን	
207	ኣብ እዋን ጥንሲ ጊዘኣን ሓቢም ዘይኣዘዘም መድሓኒት ወሲደን ይፈልጡ ዶ?	1. እወ 2. ኣይፋሉን	
208	ኣብ እዋን ጥንሲ ጊዘኣን ናይ ባህላዊ መድሓኒት ወሲደን ይፈልጡ ዶ?	1. እወ 2. ኣይፋሉን	
209	ቅድሚ ሐዚ ወላዲተን ምንፃል ጥንሲ ኣጋጢሙወን ይፈልጡ ዶ?	1. እወ 2. ኣይፋሉን	
210	ኣብ ቤተሰብን ሕማም ሽኮርያ ዘለዎ ኣሎ ዶ?	1. እወ 2. ኣይፋሉን	
211	ሕማም ሽኮርያ ኣለወን ተባሂለን ይፈልጡ ዶ?	1. ኣወ 2. ኣይፋሉን	
212	ሕማም ደም በዝሒ ኣለወን ተባሂለን ይፈልጡ ዶ?	1. እወ 2. ኣይፋሉን	
213	ዝኮነ ዓይነት ሕማም ልቢ ኣለወን ተባሂለን ይፈልጡ ዶ?	1. እወ 2. ኣይፋሉን	
214	ኣብዚ ሐዚ እዋን ዘሎ ጥንሲክ ፈሰሲ ካብ ብልዕቲ፣ ምስሓይን ምልሕሓፅን ብልዕቲ፣ ኣብ እዋን ሸንቲ ቃንዛን፣ ትሕቲ ሕንቢርቲ ቁርፀት ከብድን ነይርወንዶ ወይ ኣለወን ድዩ?	1. እወ 2. የለን	
215	ናይ ላዕላዎይ ሕቶ መልሲ እወ እንተኮይኑ ተሓቢመነኡ ዶ?	1. እወ 2. ኣይተሓከምኩን	

ክፋሊ ሰለስተ፡- ምስ ናይ ኣነባብራ ዘዴን ናይ ግሊባህርያትን ዝምልከት ሕቶታት

ታ.ቁ	ሕቶታት	ናይ ሕቶታት መልሲ	ይዘለል
301	ኣብ ሂወት ዘመነን ጫት ተጠቂመን ይፈልጣ ዶ?	1. ኣወ 2. ኣይፋሉን	ኣይፋሉን ተኮይንኑ ናብ ታ.ቁ 304 ይዘለል
302	ኣብዚ ናይ ሓዚ ጥንሲክን ግዜ ጫት ተጠቂመን ይፈልጣ ዶ?	1. ኣወ 2. ኣይፋሉን	
303	ናይ ላዕለዎይ ሕቶ መልሲ እወ እንተኮይኑ፣ ጫት መዓዝ መዓዝ ይጥቀማ?	1.መዓልታዊ 2.ካብ 5-6 መዓልቲ ኣብ ሰሙን 3.ካብ 3-4 መዓልቲ ኣብ ሰሙን 4. ካብ 1-2 መዓልቲ ኣብ ሰሙን 5.ካብ 2-3 መዓልቲ ኣብ ወርሒ 6.ሓደ ግዚን ትሕቲኡን ኣብ ወርሒ	
304	ኣብ ሂወት ዘመነን ሲጋራ ኣትኪክን ይፈልጣ ዶ?	1. ኣወ 2. ኣይፋሉን	ኣይፋሉን ተኮይንኑ ናብ ታ.ቁ 308 ይዘለል
305	ናይ ላዕለዎይ ሕቶ መልሲ እወ እንተኮይኑ፣ ኣብዚ ናይ ሓዚ ጥንሲክን ግዜ ሲጋራ ኣትኪክን ይፈልጣ ዶ?	1. ኣወ 2. ኣይፋሉን	
306	መዓዝ መዓዝ ግዜ ሲጋራ የትክካ?	1.መዓልታዊ 2.ካብ 5-6 መዓልቲ	

		አብ ሰሙን 3.ካብ 3-4 መዓልቲ አብ ሰሙን 4.ካብ 1-2 መዓልቲ አብ ሰሙን 5.ካብ 2-3 መዓልቲ አብ ወርሒ 6.ሓደግዚን ትሕቲኡንአብ ወርሒ	
307	ብማእከላይ ክንደይ ሲጋራ አብ መዓልቲ የትክካ?	----- (ብቁፅሪ ሲጋራ)	
308	አብዚ ሓዚ ግዜ ካሊአ ዓይነት ትንባኮ የትክካ ወይ ይጥቀማ ድየን?	1. አወ 2. አይፋሉን	አይፋሉን ተኮይንኑ ናብ ታ.ቁ 310 ይዘለል
309	ናይ ላዕላዎይ ሕቶ መልሲ እወ እንተኮይኑ፣ አንታይ ዓይነት ትንባኮ አየን ዝጥቀማ?	1. ፒፓ 2. ትንባኮም ሕያክ 3. ሓሺሽ ምጥቃም 4. ሺሽ ምጥቃም 5. ጋያም ጥቃም 6. ካሊአ(ይገለፅ)-- -----	
310	አብ ሂወት ዘመነን አልኮል ዘለዎ መስተ ሰትየን ይፈልግ ዶ? (ስዋ፣ አረቂ፣ ቤራ፣ ዋይን ወዘተ)	1. አወ 2. አይፋሉን	አይፋሉን ተኮይንኑ ናብ ታ.ቁ 313 ይዘለል

311	አብዚ ናይ ሓዚ ጥንሲክን ግዜ ኣልኮል ዘለዎ መስተ ሰትዮን ይፈልግ ዶ?	<ol style="list-style-type: none"> 1. አወ 2. ኣይፋሉን 	<p>ኣይፋሉን</p> <p>ተኮይንኑ ናብ ታ.ቁ</p> <p>313 ይዘለል</p>
312	ናይ ላዕለዎይ ሕቶ መልሲ እወ እንተኮይኑ፣ አብዚ ናይ ሓዚ ጥንሲክን ግዜ መዓዝ መዓዝ ኣልኮል ዘለዎ መስተይሰትያ ነይረን?	<ol style="list-style-type: none"> 1. መዓልታዊ 2. አብሰሙን ካብ 3-4 ግዜ 3. አብ ሰሙን ሓደ ግዜ 4. ቀዳምን ሰንበትን ጥራሕ 5. አብ ፍሉጣት በዓላት/ ድግስ 	
313	በዓል ገዝአን ጫት ይጥቀም ዶ?	<ol style="list-style-type: none"> 1. አወ 2. ኣይፋሉን 3. ኣይፈልጥን 	<p>ኣይፋሉን</p> <p>ተኮይንኑ ናብ ታ.ቁ</p> <p>315 ይዘለል</p>
314	ናይ ላዕለዎይ ሕቶ መልሲ እወ እንተኮይኑ፣ በዓል ገዝአን ጫት መዓዝ መዓዝ ይጥቀሙ?	<ol style="list-style-type: none"> 1. መዓልታዊ 2. ካብ 5-6 መዓልቲ አብ ሰሙን 3. ካብ 3-4 መዓልቲ አብ ሰሙን 4. ካብ 1-2 መዓልቲ አብ ሰሙን 5. ካብ 2-3 መዓልቲ አብ ወርሒ 6. ሓደግዚን ትሕቲኡን አብ ወርሒ 	

315	በዓል ገዝአን ሲጋራ የትክክል?	<ol style="list-style-type: none"> 1. አወ 2. አይፋሉን 3. አይፈልጥን 	አይፋሉን ተከይዝኑ ናብ ታ.ቁ 317 ይዘለል
316	ናይ ላዕላዎይ ሕቶ መልሲ እወ እንተከይድ፣ በዓል ገዝአን መዓዝ መዓዝ ሲጋራ የትክክል?	<ol style="list-style-type: none"> 1. መዓልታዊ 2. ካብ 5-6 መዓልቲ ኣብ ሰሙን 3. ካብ 3-4 መዓልቲ ኣብ ሰሙን 4. ካብ 1-2 መዓልቲ ኣብ ሰሙን 5. ካብ 2-3 መዓልቲ ኣብ ወርሒ 6. ሓደግዚን ትሕቲኡን ኣብ ወርሒ 	
317	በዓል ገዝአን ኣልኮል ዘለዎ መስተ ይሰትዩ ዶ?	<ol style="list-style-type: none"> 1. አወ 2. አይፋሉን 3. አይፈልጥን 	አይፋሉን ተከይዝኑ ናብ ታ.ቁ 319 ይዘለል
318	ናይ ላዕላዎይ ሕቶ መልሲ እወ እንተከይድ፣ በዓል ገዝአን ኣልኮል ዘለዎ መስተ መዓዝ መዓዝ ይሰትዩ?	<ol style="list-style-type: none"> 1. መዓልታዊ 2. ኣብ ሰሙን ካብ 3-4 ግዜ 3. ኣብ ሰሙን ሓደ ግዜ 4. ቀዳምን ሰንበትን ጥራሕ 5. ኣብ ፍሉጣት በዓላት/ ድግስ 	

319	ናይ ቤተሰብ ዋና አመሳጣጫ/ት መን አዩ?	<ol style="list-style-type: none"> 1. በዓል ገዛ 2. በዕለይ 3. ወለዲ 4. ክልቲአም 	
320	አብ ዋና ዋና ዝኮኑ ናይ ጥዕና ጉዳያት መን አዩ ዝውስን?	<ol style="list-style-type: none"> 1. በዓልቲገዛ 2. በዓልገዛ 3. ወለዲ 4. ክልቲአም 	
321	አብ ምጣነ ስድራ አገልገሎት አጠቓቅማ ጉዳይ መን አዩ ውሳኔ ዝህብ?	<ol style="list-style-type: none"> 1. በዓልቲ ገዛ 2. በዓል ገዛ 3. ወለዲ 4. ክልቲአም 	
322	አብ ማሕበረሰብክን ሰብአይ ወይ መፀምዲ ንበዓልቲ ገዛኡ ጥቅዓት ምፍፀም ዝድግፍ ልምዲ አሎ ዶ?	<ol style="list-style-type: none"> 1. አወ 2. አይፋሉን 	

ካብዚ ቀዲሉ ዝስዕብ ሙሉእ ሓሳብ ከንብበልኪ እዩ እንድሕር ትስማዕምዕን ዘይትሰማዕምዕን ከንኪ ትነግርኒ እኪ።

ታ.ቁ	ሕቶታት	ናይ ሕቶታት መልሲ	ይዘለል
323	አብ በዓል ገዛይ ወይም መፃምደይ አብ ግዜ ጥንሲ አብ ዘድለዩኒ ሰዓት ናይ ገንዘባዊ ሓገዝ ከምዝገብረለይ ይተአማመን እዩ።	<ol style="list-style-type: none"> 0. ብጣዕሚ አይስማዕምዕን 1. አይስማዕምዕን 2. ይስማዕማዕ 3. ብጣዕሚ ይስማዕማዕ 	

324	<p>በዓል ገዛይ ወይም መፃምደይ ኣብ ግዜ ጥንሲ ይንከባከበኒ እዩ።</p>	<p>0. ብጣዕሚ ኣይስማዕምዕን</p> <p>1. ኣይስማዕምዕን</p> <p>2. ይስማዕማዕ</p> <p>3. ብጣዕሚ ይስማዕማዕ</p>	
325	<p>በዓል ገዛይ ወይም መፃምደይ ኣብ ግዜ ድሕሪ ውሊድ ኣድላዪ ዝኮነ ሓገዝ ክገብረይ እዩ።</p> <p>ኣስታውስ፡ ኣድላዪ ዝኮነ ሓገዝ ማለት ቆልዓ ምሓዝ፣ ቆልዓ ምሕፃብ....ወዘተ</p>	<p>0. ብጣዕሚ ኣይስማዕምዕን</p> <p>1. ኣይስማዕምዕን</p> <p>2. ይስማዕማዕ</p> <p>3. ብጣዕሚ ይስማዕማዕ</p>	
326	<p>በዓል ገዛይ ወይም መፃምደይ ኣብ ግዜ ጥብሲ ዝስሙዕኒ ስሚዕታት ይርደኣለይ እዩ።</p> <p>ኣስታውስ፡ ኣብ ግዜ ጥብሲ ዝስሙዕኒ ስሚዕታት ማለት ምቅልሽላሽ፣ ምግቢ ምፅላእ፣ ነገራት ደስ ምባል፣ ባህሪያዊ ለውጢታትን ካልኣትን እዮም።</p>	<p>0. ብጣዕሚ ኣይስማዕምዕን</p> <p>1. ኣይስማዕምዕን</p> <p>2. ይስማዕማዕ</p> <p>3. ብጣዕሚ ይስማዕማዕ</p>	
327	<p>ኣብ በዓል ገዛይ ወይም መፃምደይ ኣብ ግዜ ጥብሲ ኣብ ዝድልዮ ስዓት ከምዝበፀሐለይ ይተኣማመነሉ እዩ።</p>	<p>0. ብጣዕሚ ኣይስማዕምዕን</p> <p>1. ኣይስማዕምዕን</p> <p>2. ይስማዕማዕ</p> <p>3. ብጣዕሚ ይስማዕማዕ</p>	

ክፋሊ አርባዕተ፡- ኣብ ነብሰ ፀር ኣዲታት ዝበፀሕ ጥቅዓት ዓይነታት ዘመልከተ ሕቶታት

ሓዚ ድማ ብዛዕባ ኣብ ደቂ ኣንስትዮ ሂወት ኣገዳሲ ዝኮኑ ነገራት ክጥይቀክን ኣዩ። ኩሉ ግዜ ክልተ ሰባይን ሰባይትን ብሓባር ኣንትነብሩ ፀቡቕን ሕማቕን ግዜ ይገልጹ ኣዮም። ኣነ ድማ ሓዚ ብዛዕባ ምስ በዓል ገዝኣን ዘለወን ርክብ ዝተመልከተ ጥያቄ ክጥይቀክን ኣዩ። ኣዚ ሕዚ ዝጥይቀክን ጥያቄ ሚስጥሩ ዝተሓለወን፣ ኣዚ ጥያቄ ከም ዝተጠየቃን ንካሊኣ ሰብ ኣይፈልጥን፣ ከምኡውን ናብ ሳልሳይ ወገን ከምዘይመሓላለፍ ክገልጥፀ ይፈቱ። ካብ ዝጥይቀክን ምምላስ ዘይትደልይኣ ጥያቄ ኣንተሃልዩ ይሓብራኒ ኣሞ ናብ ቀፀሊ ጥያቄ ምሕላፍ ይከኣል ኣዩ። ምጥያቅታይ ደሞ ክጅምር?

ንኡስ ክፋል ሓደ፡- ኣብ ነብሰ ፀር ኣዲታት ዝበፀሕ ስነ-ልቦናዊ ጥቅዓት ዓይነታት ዘመልከተ ሕቶታት

ታ.ቁ	ሕቶታት	ናይ ሕቶታት መልሲ	ይዘለል
401	ኣብዚ ናይ ሓዚ ጥንሲክን ግዜ ውሽጢ በዓል ገዝኣን ወይ መፀምደን ብሕማቕ ቃላት ስለ ዝፀረፈ ንበዕለን ክሰብ ዝፀልኣ ሕማቕ ስምዒት ተሰሚዕወን ይፈልጥ ዶ?	1. ኣወ 2. ኣይፋሉን	
402	ኣብዚ ናይ ሓዚ ጥንሲክን ግዜ ውሽጢ በዓል ገዝኣን ወይ መፀምደን ሰብ ኣብዘሎዎ ኣሸማቂቅወን ወይ ድማ ኣሕፋሪ ቃላት ተናገርወን ይፈልጥ ዶ?	1. ኣወ 2. ኣይፋሉን	
403	ኣብዚ ናይ ሓዚ ጥንሲክን ግዜ ውሽጢ በዓል ገዝኣን ወይ መፀምደን ኮነኢሉ ኣፈራሪቕወን ወይ ፈኪሩለን ይፈልጥ ዶ?	1. ኣወ 2. ኣይፋሉን	
404	ኣብዚ ናይ ሓዚ ጥንሲክን ግዜ ውሽጢ በዓል ገዝኣን ወይ መፀምደን ብበትሪ፣ ቀበቶ፣ ካራ፣ ሽጉጥን ካልኣት መሳርሒታት ተጠቂሙ ኣፋራሪቕወን ይፈልጥ ዶ?	1. ኣወ 2. ኣይፋሉን	
405	ኣብዚ ናይ ሓዚ ጥንሲክን ግዜ ውሽጢ በዓል ገዝኣን ወይ መፀምደን ብዝኮነ ዝፈትዎኦ ሰብ ወይም ነገራት ጉደኣት ምብፃሕ ሞኪሩ ይፈልጥ ዶ?	1. ኣወ 2. ኣይፋሉን	

406	አብዚ ናይ ሓዚ ጥንሲክን ግዜ ውሽጢ በዓል ገዝአን ወይ መፀምደን አብላዕሊ ካብ ዝተገለፀ ናይስነ-ልቦናዊ መጥቃዕቲ በቢክንደይ ግዚ ይፍፀመለን ነይሩ?	<ol style="list-style-type: none"> 1. መዓልታዊ 2. ብውሕድ አብ ሰሙን ሓደ ጊዘ 3. ብውሕድ አብ ወርሒ ሓደ ጊዘ 	
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ንኡስ ክፋል ክልተ፡- ኣብ ነብሰ ፀር ኣዲታት ዝበፀሕ ኣካላዊ ጥቅዓት ዓይነታት ዘመልከ ተሕቶታት

ታ.ቁ	ሕቶታት	ናይ ሕቶታት መልሲ	ይዘለል
501	አብዚ ናይ ሓዚ ጥንሲክን ግዜ ውሽጢ በዓል ገዝአን ወይ መፀምደን ብፅፍዒት ወቂዕወን ወይም ዝኮነ ነገር ደበሩይለን ይፈልጥ ዶ?	<ol style="list-style-type: none"> 1. አወ 2. ኣይፋሉን 	
502	አብዚ ናይ ሓዚ ጥንሲክን ግዜ ውሽጢ በዓል ገዝአን ወይ መፀምደን ብሓይሊ ደፈአወን ወይም ብዘይኣግባብ ኢደን ጨቢጥወን ይፈልጥ ዶ?	<ol style="list-style-type: none"> 1. አወ 2. ኣይፋሉን 	
503	አብዚ ናይ ሓዚ ጥንሲክን ግዜ ውሽጢ በዓል ገዝአን ወይ መፀምደን ብብክሲ ወቂዕወን፣ ኢደን ጠምዚዝወን ወይ ድማ ብካሊኣ ነገር ወቂዕወን ይፈልጥ ዶ?	<ol style="list-style-type: none"> 1. አወ 2. ኣይፋሉን 	
504	አብዚ ናይ ሓዚ ጥንሲክን ግዜ ውሽጢ በዓል ገዝአን ወይ መፀምደን ብካልቶ ወቂዕወን፣ ቀጥቂጥወን ወይ ድማ ጉድኣት ኣብዲሑለን ይፈልጥ ዶ?	<ol style="list-style-type: none"> 1. አወ 2. ኣይፋሉን 	
505	አብዚ ናይ ሓዚ ጥንሲክን ግዜ ውሽጢ በዓል ገዝአን ወይ መፀምደን ብካራ፣ ሽጉጥ ወይም ካሊኣ መሰርሒ ብምጥቃም ጥቅዓት ኣብዲሑለን ይፈልጥዶ?	<ol style="list-style-type: none"> 1. አወ 2. ኣይፋሉን 	
506	አብዚ ናይ ሓዚ ጥንሲክን ግዜ ውሽጢ በዓል ገዝአን ወይ መፀምደን ኮነ ኢሉ ማይ ሙቅ ለብሊብወን ወይም ናይ ምቅፀል ሓደጋ ኣብፀሑለን ይፈልጥ ዶ?	<ol style="list-style-type: none"> 1. አወ 2. ኣይፋሉን 	

507	አብዚ ናይ ሓዚ ጥንሲክን ግዜ ውሽጢ በዓል ገዝአን ወይ መፀምደን ብበክሲ ወይ ድማ ብካልቾ አብ ከባደን ወቂዕውን ይፈልጥ ዶ?	1. አወ 2. አይፋሉን	
508	አብዚ ናይ ሓዚ ጥንሲክን ግዜ ውሽጢ ዝረአ ጠባሳ፣ ንካሰ ምልክት፣ ናይ ዓይኒ ጉዳት፣ ሕባጥን ካሊኦ ምልክት ጉድኣት ኣሎ ዶ?	1. አወ 2. አይፋሉን	
509	አብዚ ናይ ሓዚ ጥንሲክን ግዜ ውሽጢ በዓል ገዝአን ወይ መፀምደን ኣብላዕሊ ካብ ዝተገለፀ ናይ ኣካላዊ መጥቃዕቲ በቢክንደይ ግዚ ይፍፀመሉን ነይሩ?	1. መዓልታዊ 2. ብውሕድ ኣብሰሙን ሓደ ጊዘ 3. ብውሕድ ኣብ ወርሒ ሓደ ጊዘ	

ንኡስ ክፋል ሰለስተ፡- ኣብ ነብሰ ፀረ ኣዲታት ዝበፀሕ ናይ ፀታዊ ጥቅዓት ዓይነታት ዘመልከተ ሕቶታት

ታ.ቁ	ሕቶታት	ናይ ሕቶታት መልሲ	ይዘለል
601	አብዚ ናይ ሓዚ ጥንሲክን ግዜ ውሽጢ በዓል ገዝአን ወይ መፀምደን ፍቃደኛ ከይኮንኪ ኣንከለኪ ግብረ ሰጋ ርክብክ ትገብሩ ኣገዲድውን ይፈልጥ ዶ?	1. አወ 2. አይፋሉን	
602	አብዚ ናይ ሓዚ ጥንሲክን ግዜ ውሽጢ በዓል ገዝአን ወይ መፀምደን ድልዎት ከይሃለውክን በዓል ገዝክን ዝኮነ ነገር ክገብረኒ ኣዩ ኢልክን ብምፍራሕ ግብረ ስጋ ርክብ ገይረን ይፈልጥ ዶ?	1. አወ 2. አይፋሉን	
603	አብዚ ናይ ሓዚ ጥንሲክን ግዜ ውሽጢ በዓል ገዝአን ወይ መፀምደን ዘይተለመደ ወይ ኣፍራሒ ኣልኪን ትሓስበኦ ዓይነት ግብረ ስጋ ርክብ ክትገብሩ ኣገዲዱክን ይፈልጥ ዶ?	1. አወ 2. አይፋሉን	

604	<p>አብዚ ናይ ሓዚ ጥንሲክን ግዜ ውሽጢ በዓል ገዝአን ወይ መጭደን አብ ላዕሊ ካብ ዝተገለጸ ናይ ፀታዊ መጥቓዕቲ በቢክንደይ ግዚ ይፍጹመሉን ነይሩ?</p>	<ol style="list-style-type: none"> 1. መዓልታዊ 2. ብውሕድ አብሰሙን ሓደ ጊዘ 3. ብውሕድ አብ ወርሒ ሓደ ጊዘ 	
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ግዚክን ስለዝሃብክናኒ ብጣዕሚ እዩ ዘመስግን።

ክፋል ሓሙሽተ፡- ብጣዕላኻ ወይ ካብ ናይ ኣዶ ካርዲ ዝምለኣ

ታ.ቁ	ሕቶታት	ናይ ሕቶታት መልሲ	ይዘለል
701	<p>ናይ ጥንሲ ዕድመ መክንደይ አዩ? (ካብ LNMP ብምብገስ ተቆጻሩ፣ ካብ ካርዲ ናይ ሓኪም ዲያግኖሲስ)</p>	<p>------(ብሰሙን)</p>	
702	<p>ናይ ኣዶ MUAC ዓቀን ክንደይ አዩ?</p>	<p>------(ብሳ.ሜ)</p>	
703	<p>ናይ ኣዶ ፀቕጢ ደም መጠን ክንደይ አዩ?</p>	<p>-----//-----(ብ ሚ.ሜ ሜርኩሪ)</p>	
704	<p>ናይ ኣዶ ኤች.አይ.ቪ ኩነታት አንታይ አዩ?</p>	<ol style="list-style-type: none"> 1. ኔጋቲቭ 2. ፖዘቲቭ 	

10.6 Tigrigna Version of indepth interview (ቃለ መጠይቅ)

10.6.1 ናይቲ ፅንዓት ተሳተፍቲ መረዳኢታ ሰነድ

መጀመርታ ግዚክን/ኩም ሂቡኩም ክትረክባኒ/ቡኒ ፍቃደኛ ስለዝከንክነ/ኩም የመስግን። ስምይ ንወ/ሪት ሄለን ተወ/ብርሃን ይበሃል። ኣብ ኣዲስ ኣበባ ዩንቨርሲቲ ብሕብረተሰብ ጥዕና ካልኣይ ዲግሪ ብምምሃር ትርከብ። ናይዚ ትምህርቲ ኣካል ዝኮነ ፅንዓት ዝግበር ኣንትኮን ኣዚም ኣብ ኣዲታት ጥንሲ ጊዜ ኣንከለዎ ብበዓል ሓዳሪን ዝበፀሐን መጥቓዕቲ ዝተልዓለ ኣብ ጥንሲ ምንፃል ዘለዎ ተፅዕኖ የፅንዕ። ኣብ ናይ ገዛ ውሽጢ መጥቓዕቲ ዘለክን ኣረኣጃ፣እምንት፣ሓሳብን ከምኡውን ናይ ገዛ ውሽጢ መጥቓዕቲን ጥንሲ ምንፃልመልን ዘለዎም ረክብን ክጥይቀክን ይፈቱ። እትህበኡ መረዳኢታ እውን ንቀፋሊ ናይ ገዛ ውሽጢ መጥቓዕቲ ንምቁራፅ ኣብዝዘጋጀው እስትራቴጂን ፕሮግራምን ሓገዝ ይህልዎ እዩ።

እዚ ቃለ መጠይቅ ልዕሊ ሓደ ሰዓት ዘይወስድ መጠይቅ እንተኮን፤ ናይ ድምዳሜ መቅድሒ መሰርሒ ክጥቀም እዩ። ምክንያቱም እትህበኡ ሪኪቶን ሓሳብን ከየምልጠኒ ስለዘይብሉን ብደንቢ ክርደኣንን ምእንይ እዩ። ሓላሓሊፉ ድማ ባፅሑፍ ቃለ ጉባኢ እውን ክሕዝ እዩ። እዚ ዘተቀድሐ ቃለ መጠይቅ ንሳልሳይ ወገን ኣሕሊፍካ ከምዝይወሃብ ክገልፅ ይፈቱ። ማንነትክን እውን እብ ዝፀሓፍ ሪፖርት ኣይፀሓፍን። ድሕሪ እዚ ዘተቀድሐ ቃለ መጠይቅ ናብ ፅሑፍ ምግልባጡ እቲ ዘተቀድሐ ቃለ መጠይቅ ክድምስስ እዩ። ኣብ ዘይደለክነኡ ርእሲ እውን ናይ ዘይምንጋርን እዚ ቃለመጠይቅ ብዘይምንም ፀገም ናይመቁራፅን መሰለን ሕሉው እዩ።

ካን ዝለዓለ ክብራህራሃልክን ትደልዩኡ ወይ ጥያቄ ኣለክን ድዩ? ካሊእ ጥያቄ እንተሃሊወን/ዎም ብዝስዕብ ኣድራሻ ይርከባኒ

ስም:- ሄለን ተወ/ብርሃን ሃይሉ ስልኪ ቁፅሪ:- +251967902000

ኤሜል:- helentewelde13@gmail.com

ኣብዚ ፅንዓት ንምስታፍ ፍቃደኛ ድዩን/ዮም? ፍቃደኛ እንተኮይነን/ኖም እዚ ዘስዕብ ፎርም ይምልኡ/ኡ።

10.6.2 ናይ ስምምዕነት መውሃቢ ፎርም

ካብዚ ብላዕሊ ዘሎ መረዳኦታ ብዝርደኡን ቋንቋ ኣንቢቦ ተረዲኡኒ እዩ። ዘይተረደኡን ጥያቄም ጠይቀ ከምዝደለክዎ ብጥልቂ ተብራህሪሁለይ እዩ። ኣብ ዝደለክዎ ሰዓት እውን እዚ ቃለመጠየቕ ብዘይምንም ፀገም ከቃርፅ ከምዝክእል ይፈልጥ እዩ።

1. ኣብቲ ፅንዓት ንክሰተፍ ወሲነ ኣለኩ-----
2. ኣብቲ ፅንዓት ንክይሰተፍ ወሲነ ኣለኩ-----

ኣቲ ፅንዓት ትገብር ስም:- ሄለን ተወ/ብርሃን ሃይሉ

ኣድረሻ:- ስልኪ ቁፅራ:- +251967902000

ኤሜል:- helentewelde13@gmail.com

ኣዚ መሕተት ዝተገበረሉ ዕለት-----

ናይ ዝተገበረሉ ሰዓት----- ናይ ዝተወዳኣሉ ሰዓት -----

ናይ መረዳኦታ ሰብሳቢ ስም-----

ፊርማ-----

10.6.3 ናይ ፅንዓት ተሳተፍቲ ቃለ መሕተት

ኣብ ሕብረተሰባት ብዛዕባ ኣብ ደቂ ተባዕትዮ ን መፃምዶም ወይም ኣንስቶም ዘርእይዎ እንክብካቢ ዝተፋላለዩ ኣረኣጃዎ እዩ ዘሎ። ኣነ እውን ኣብዚ ዛዕባ እዚ ዝተወሰነ ጥያቄታት ክጥይቅ እዩ። ኣብቲ ጥያቄ ዘለክን/ኩም ኣረኣጃዎ ንክትነግሩኒ እውን ብክብረ ይሓትት። እትምልስዎ/ኦ መልሲ እውን ሓቂ ወይ ጊጋ መልሲ ይብሉ። ስለዝከንዎ ዝመሰለክን መልሲ ንክትምልሱ/ኩ ይዕድም።

7.6.3.1 ደሕረ ባይታ እታ ኣዶ ዝምልከት

ታ.ቁ	መሕተት
1.	ዕድመኡን ክንደይ ኣዩ?
2.	መንበሪክን ኣበይ እዩ?
3.	ኩነታት ሓዳረን ኣንታይ ይመስል?
4.	ናይ ምንታይ ሃይማኖት ተከታሂት ኣዩን?
5.	ክሳብ ክንደይ ደረጃ ትምህርቲ ተማሂረን?
6.	በዓል ገዝኣን ዝበፀሕዎ ደረጃ ትምህርቲ ክንደይ ኣዩ?
7.	ዋና ስራሕን ኣንታይ ኣዩ?

10.6.3.1 ናይ ግሊ ኣመለካክታ

1. ብዛዕባ ናይ ገዛ ውሽጢ መትቃዕቲ እንታይ ኣረኣጃዎ ኣለክን (ኣካላዊ፣ መንፈሳዊ፣ ግብረ ስጋዊ መጥቃዕትታት)? ብዛዕባ ዘም መጥቃዕቲ ከመይ ይርድኣኡ? ኣብነት ይሃቡ? ብዝበዘሉ ግዚ ዝትግበር ዓይነታት ናይ ገዛ ውሽጢ መትቃዕቲ ከ እንምን እም? ሳዕቤናታቶም ከ እንታይ እንታይ እዮም?

2. ንምንታይ እዮም ሰባት ናይ ገዛ ውሽጢ መትቃዕቲ ዝፍፀምዎ ዝመስለክን?

መመርመሪ:-

- ብምንታይ ክንያታት ናይ ገዛ ውሽጢ መትቃዕቲ ዝፍፀም?
- መን እዩ ናይ ናይ ገዛ ውሽጢ መትቃዕቲ ፈፃሚ(ኣንስትዮ ወይ ተባዕትዮ)?

3. አብ ናይ ገዛ ውሽጢ መትቃዕቲ ናይ ሕብረተሰብ አረአጃዎ እብታይ ይመስል? አብ ሰብኡት፣ አንስቲ፣ ወጣት፣ ሽማግሌ፣ናይ ሃይማኖት መራሕቲን ናይ ፖለቲካ መራሕቲን?
4. አብዚ ሕብረተሰብ ን ናይ ገዛ ውሽጢ መትቃዕቲ ዝድግፍ ወይ ዘቃለስ ልምዲ አሎ ዶ ይትቀሳ? ናይ ገዛ ውሽጢ መትቃዕቲ አንትፍፀም እቲ ሕብረተሰብ ብከመይ ይፈትሖ ይትቀሳ?

መመርመሪ:-

- ብምድርዳር
- ብስቅታ
- ብሕጋዊ መንገዲ

10.6.3.2 ናይ ሃንደበታዊ ጥንሲ ምንፃል ምክላክሊ መንገዲ አረዳድኦ ዝምልከቱ መጠይቓት?

1. ሃንደበታዊ ጥንሲ ምንፃል እንታይ ማለት እዩ?
 - ✓ ኩነታት ትርጉሙ
 - ✓ ናይ ሃንደበታዊ ጥንሲ ምንፃል ሳዕቤናም እንታይ እዮም
2. ሃንደበታዊ ጥንሲ ምንፃል ከመይ ክፍጠር ይክእል?
 - ✓ ናይ ሃንደበታዊ ጥንሲ ምንፃል መምፅኢ ምክንያታት እንታይ እዮም
3. ናይ ገዛ ውሽጢ መትቃዕቲን ሃንደበታዊ ጥንሲ ምንፃልን ዘለዎም ርክብ እንታይ ግንዛብ እዩ ዘለኪ? ገዛ ውሽጢ ጥቕዓት በዲሒወን ሃንደበታዊ ጥንሲ ምስዳድ ዘጋጠማ አንስተይቲ ትፈልጢ ዶ? መልሱ እወ እንተኮይኑ ብደንቢ አብራህርህልና::
4. ሃንደበታዊ ጥንሲ ምንፃል ከመይ ምክልካል ይክኣል? ናይ ገዛ ውሽጢ መትቃዕቲን ንምክልካል እንታይ ክግበር ኣለዎ ኢልኪ ትሓስቢ ብፍላይ ድማ አብ ጠኒሳ ግዚ?ደቂ ተባዕቲዮ ንመፃምዶም ወይ አንሰቶም አብ ጥንሲ ዝፍጠረሉ እዋን እንታይ ዓይነት ድጋፍ ክግበር ኣለዎም?

10.6.3.3 ናይ ቃለመሕትት መምርሒ ን ናይ ጥዕና በዓል ሞያታትን ዋና ክፍሊ ሓለፍትን

U. መሰረታዊ መግለጺታት ናይ ጥዕና በዓል ሞያ

1. ፆታ?
2. ዕድሜ?

3. ሞያ?

4. ስራሕ ልምዲ አብ ክፍሊ ጥዕና ጥኑሳት ኣዴታትን ሀፃናትን ክለኒክ?

ለ. ሕቶ ንናይ ጥዕና በዓል ሞያ ኣብ ናይ ገዛ ውሽጢ መትቃዕቲን

1. ኣብ ናይ ገዛ ውሽጢ መትቃዕቲን ዘለካኪ ኣመለኸኽታ እንታይ እዩ?

መልዐሊ:-

- ናይ ገዛ ውሽጢ መትቃዕቲን ትርጉም
- ዝዝውተሩ ዓይነታት ናይ ገዛ ውሽጢ መትቃዕቲን

2. ናይ ገዛ ውሽጢ መትቃዕቲን ሓደጋታት እንታይ እዮም?

መልዐሊ:-

- ምኽንያታት ናይ ገዛ ውሽጢ መትቃዕቲን
- መን እዩ ናይ ገዛ ውሽጢ መትቃዕቲን ፈፃሚ(ኣንስትዮ ወይ ተባዕትዮ)

3. ናይ ገዛ ውሽጢ መትቃዕቲን ሳዕቤናት እንታይ እንታይ እዮም?

4. ብምኽንያት ናይ ገዛ ውሽጢ መትቃዕቲን ቅፅበታዊ ዝኾነ ናይ ፅንሲ ምውራድ ዘጋጠማ ኣንሰተይቲ ኣጋጢማትኪ\ካ ትፈልጥ ዶ? መብራህርሂ ሃብኪ:: መዓዘ ? ብኸመይ ኣጋጢሙ? እቲ ምውራድ ፅንሲ ከመይ ተቐፃፂርኪዮ\ክዮ? ካልኣት ጥዕናዊ ሳዕቤናት ኔሮም ዶ?

ሐ. ሕቶ ኣብ ናይ ገዛ ውሽጢ መትቃዕቲን ንናይ ዘባ ጥዕና ክፍሊ ጥኑሳት ኣዴታትን ሀፃናትን ዋና ክፍሊ ሓላፊ

1. እንታይ ዓይነት ናይ ገዛ ውሽጢ መትቃዕቲን ስትራቴጂታት መደባት ከምኡ እውን መከላኸልታት ኣብ ተግባር ተውዕሉ?

መልዐሊ:-

- በይዝኣም\ኣን ይዘርዝሩ

2. ነዘም ስትራቴጂታት መደባትን መከላኸልታትን ኣብ ተግባር ከይተውዕሉ ዘጋጠምኹም መሕልኸታት ነይሮም ዶ?

መልዐሊ:-

- በይዘትም\አን ይዘርዘሩ
- ዝፀንሱ መሕልኸታት ኸ?

3. ንመጠናኸሪ እዞም ስትራተጂታት □ መደባትን መከላኸልታትን እንታይ ምምሕደሻት ኣብ መፃኢ ፃዕርታት ኣለካኪ?

7.6.3.5 መዕፀዊ ናይዚ ቃለ መሕትት

ድሕሪ ምሕታት እቶም ዋና ሕቶታት እዚ ቃለ መሕትት ዝስዕቡ ቃላት ብምጥቃም ይጠቓለል

- ትውስኸ\ኸዮ ትደሊ ነገር ኣሎ ዶ?

ንዝሃባኒ/ቡኒ ግዚአን/ኦም የመስግን።

ASSURANCE OF PRINCIPAL INVESTIGATOR

I, the undersigned MPH student declare that this thesis is my original work in partial fulfillment of the requirement for a master's of public health in Reproductive and Family Health.

Name of student: Helen Teweldebrhan

Signature _____ Date _____

Name of primary advisor: Dr. Wubegzier Mekonnen

Signature _____ Date _____