

ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCE DEPARTMENT OF
NURSING AND MIDWIFERY POSTGRADUATE
NURSING PROGRAM

**ASSESSMENT OF KNOWLEDGE ABOUT BIRTH PREPAREDNESS
AND COMPLICATION READINESS AND ASSOCIATED FACTORS
AMONG PRIMIGRAVIDA WOMEN IN ADDIS ABABA
GOVERNMENTAL HEALTH FACILITIES**

By: AYELECH KIDANEMARIAM (BSc)

**THESIS SUMMITTED TO NURSING AND MIDWIFERY
DEPARTMENT; COLLEGE OF HEALTH SCIENCE, ADDIS ABABA
UNIVERSITY; FOR PARTIAL FULFILLMENT OF THE
REQUIREMENT FOR THE DEGREE OF MASTER OF
REPRODUCTIVE HEALTH AND MATERNITY NURSING.**

JUNE /2015

ADDIS ABABA, ETHIOPIA

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APPROVED BY THE BOARD OF EXAMINERS

This thesis is by Ayelech K/mariam Mulugeta accepted in its present form by the Board of Examiners as satisfying thesis requirements for degree of Masters of Science in Maternity and Reproductive Health Nursing.

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Acronyms and Abbreviations

A.A	Addis Ababa
ANC	Antenatal Care
BP	Birth Preparedness
CHW	Community Health Worker
CR	Complication Readiness
EDHS	Ethiopian Demographic and Health Survey
EmONC	Emergency Obstetric and Neonatal Care
FANC	Focused Antenatal Care
JHPIEGO	Johns Hopkins Program for International Education in Gynaecology and Obstetrics
HC	Health Centre
HEW	Health Extension Worker
HIV	Human Immunodeficiency Virus
HP	Hospital
MDG5	Millennium Development Goal for maternal health
MMR	Maternal Mortality Ratio
MOH	Federal Ministry of Health
SC	Sub-city
SPSS	Statistical Package for Social Science
WHO	World Health Organization

Abstract

Background: Globally, every minute, at least one woman dies from complications related to pregnancy or childbirth. The situation is more serious for women in Sub-Saharan Africa which also include Ethiopia. Birth preparedness is a strategy to promote the timely use of skilled maternal and neonatal care, especially during childbirth. Based on the theory, preparing for childbirth reduces delays in obtaining this care. Inadequate preparation for rapid action in the event of obstetric complications, are well documented factors contributing to delay in receiving skilled obstetric care.

Objective: The objective of this study was to identify the knowledge of birth preparedness and complication readiness and its associated factors among primigravida in Addis Ababa Governmental health Facilities.

Methods: A quantitative facility based cross-sectional study design and client exit interview questionnaire were used to assess the knowledge & associated factors of birth preparedness and complication readiness among primigravida women. Four hundred forty two primigravida women those who came for Antenatal care service in health centres & hospitals were included. The data was entered using Epidata version 3.1 and Statistical Package for Social Science window version 20 software used for data analysis and logistic regression model was used to assess the knowledge by predictor's variables.

Result: From 442 respondents the response rate was 422(95.5 %). Based on the operational definition of the study, the respondents were knowledgeable in pregnancy, labour, postnatal and new born neonate 113(26.8%), 47(11.1 %), 60(14.2%) and 46(10.9%) respectively. According to birth preparedness 64 (15.2%) of primigravida women were knowledgeable. In this study, factors associated with knowledge of birth preparedness and complication readiness were found to be married women with [AOR=0.110, 95%CI (0.026, 0.461);

p<0.05], less likely knowledgeable than unmarried women, house hold monthly income of 1000-3000 with [AOR=3.362(1.203,9.393);p<0.05] more likely knowledgeable as compared to more than 3000 birr, knowledgeable for key danger signs of labour with [AOR=3.685, 95%CI (1.157, 11.737); p<0.05] and knowledgeable for key danger sign of post partum period with [AOR =5.117, 95%CI (1.388, 18.863); p<0.05].

Conclusion

The knowledge of primigravida women for birth preparedness and its complication readiness is poor.

Recommendation

Those who are responsible to improve this service; pregnant mothers, family, health care providers, health facility, other partners, program level managers and policy makers take their responsibility and work together to improve the service & knowledge on birth preparedness and complication readiness.

Key words: Birth preparedness, Complication readiness, primigravida, Knowledge, Health Facilities.

CHAPTER ONE

1. Introduction

1.1. Background

Women play a major role in the rearing of children and the management of family affairs but their loss from maternity-related causes is a significant social and personal tragedy [1]. As estimated by the World Health Organization (WHO), about 580,000 women die each year from complications arising from pregnancy and childbirth [1] every minute, at least one woman dies from complications related to pregnancy or childbirth. The situation is more serious for women in Sub-Saharan Africa where one in every 16 women dies because of pregnancy related causes. In fact, Sub Saharan Africa incurs 98% of maternal deaths [2]. Three-quarters of the 4 million global neonatal deaths occur in the first week of life and the stillbirth rate is 32 per 1000 deliveries, of which 24 - 37% occur during the intrapartum period [3].

In Ethiopia, an estimated 2.9 million women give birth every year. Of these, approximately 25,000 women & girls die each year and more than 500,000 suffer from complications including obstetric fistula. As a result, Ethiopia has probably one of the highest and unacceptably high maternal mortality with 676 per 100,000 live births in the world [1, 3].

For this disaster receiving care from a skilled provider during childbirth has been identified as the most important intervention to prevent maternal and neonatal mortality. Antenatal care providers are expected to engage in dialogue with pregnant women to develop appropriate and individualized delivery plans based on the concept of birth preparedness and complication readiness [4, 5]. This strategy should be implemented routinely in all antenatal clinics. Birth preparedness is a strategy to promote the timely use of skilled maternal and neonatal care, especially during childbirth, based on the

theory that preparing for childbirth reduces delays in obtaining this care. A birth plan/emergency preparedness plan include identification of following elements: knowledge of danger signs, the desired place of birth, the preferred birth attendant, the location of the closest appropriate care facility, funds for birth-related and emergency expenses, a birth companion, support in looking after the home and children while the woman is away, transport to a health facility for the birth, transport in the case of an obstetric emergency, and identification of compatible blood donors in case of emergency [5,6].

Even though in rural Burkina Faso, Uganda and Tanzania & Gambia study result shows that; during their current visit less than 23% of women received information on danger signs& birth plan [2, 4].In addition, a recent qualitative study of maternal deaths suggested that low levels of awareness of danger signs of pregnancy and delivery & found that inadequate funds and transport were a key cause of delay in deciding to seek care and reaching facilities that contribute to continuing high maternal mortality ratios in the country [4,5].

1.2. Statement of the problem

WHO study indicated that more than half million women were dying each year from the complications of pregnancy and childbirth; with the vast majority of these deaths (99%) occurring in the developing world. Across all developing countries for every 100,000 live births, 450 women died during pregnancy, childbirth, or the postpartum period [7, 8].

In Ethiopia, According to the year 2011 EDHS report, the levels of maternal mortality and morbidity are among the highest in the world and the current estimate of MMR is 676 per 100, 000 live births and it is reported that Maternal deaths accounted for 21% of all death which is among the highest in the world[3, 8].These major causes of maternal deaths are obstructed/prolonged labour (13%), ruptured uterus (12%), severe pre-eclampsia/ eclampsia (11%) and malaria (9%). Moreover, 6% of all maternal deaths were attributable to complications from abortion [9].

A majority of these maternal deaths are considered preventable, as new born deaths, if there is timely access to appropriate interventions when obstetric complications occur [10] which is haemorrhage, infection, obstructed labour, abortion and eclampsia in mothers and asphyxia, infection and prematurity or low birth weight among the new born [11]. Nationally ANC coverage first visit and fourth visit were 42.6 and 19.1 % of respectively. But in Addis Ababa ANC coverage was near to 100% [12]. This high ANC coverage provides excellent opportunities for IEC on BP and CR.

In many societies in the world, cultural beliefs and lack of awareness inhibit preparation in advance for delivery and expected baby. Since no action is taken prior to the delivery, the family tries to act only when labour begins. The majority of pregnant women and their families do not know how to recognize the danger signs of complications. When complications occur, the unprepared family will waste a great deal of time in recognizing

the problem, getting organized, getting money, finding transport and reaching to the appropriate referral facility [13].

Several studies have reported that lack of advance planning for use of a skilled birth attendant for normal births, and concept of birth preparedness and complication readiness in which the family and community should have advanced planning and preparation to ensure safety and wellbeing of the women and newborns throughout pregnancy, delivery and after delivery. Good plans and preparations will increase utilization of skilled care and reduce delays in accessing care in case of pregnancy and delivery complications [14]. However, inadequate preparation for rapid action in the event of obstetric complications, are well documented factors contributing to delay in receiving skilled obstetric care[8]. Regular ANC visits can provide some benefits for the women such as a strong relationship between women and the health care provider that can result in reducing complications during pregnancy [15]. Besides improved knowledge of obstetric danger signs, birth preparedness and readiness for emergency complications are among strategies aimed at both enhancing utilization of maternal health services and increasing access to skilled care during childbirth, particularly for women with obstetric complications [16, 17].

In North Ethiopia, Adigrat town, Arise zone, Robe wereda studies addressing the knowledge & practice of danger sign & BP taking into account place of delivery identification ,means of transportation and saved money about only 22 % & 16.5% of respondents were prepared for birth & its complication respectively [8,11].

The factors that affect BP & CR included the role of husbands, level of education, parity and absence of community based support services for maternal health services was observed monthly income, ANC visit & knowledge of obstetric complications were also significantly associated with birth preparedness and complication readiness [8,11,18].

But in Addis Ababa health facilities there is no any study on birth preparedness & complication readiness among primigravida women.

The principal investigator hypothesized that there is a knowledge gap on BP& CR among primigravida women. Therefore the principal investigator poses question as:

1. Do primigravida have adequate knowledge on birth preparedness and complication readiness among primigravida women in A.A Governmental Health Facilities?
2. What factors are associated with the knowledge of birth preparation and complication readiness among primigravida women in A.A Governmental Health Facilities?

1.3. Significance of the study

It is difficult to predict which pregnancy, delivery or post delivery period will experience complications; hence birth preparedness and complication readiness plan is recommended with the notion of pregnancy is risk [5]. Birth preparedness and complication readiness is a comprehensive strategy to improve the use of skilled providers at birth, the key intervention to decrease maternal mortality [19]. Some studies were found in Ethiopia on BP & CR. But there is no study selectively in primigravida women & they have no any experience on birth plan & complication readiness. Therefore, this research was designed to evaluate awareness on BP & CR and factors associated with them among primigravida women. The finding of this study was useful to know the level of knowledge & to do reinforcing or modifying behavioral change communication for primigravida women as part of an overall strategy for achieving good maternal health care and the country's Millennium Development Goal for Maternal Health (MDG5). Besides, this research will provide baseline for other researchers who will conduct similar study and other related to the current research problem. Over all this research will be helpful to inform policy makers, particularly, the ministry of health to come up with new policies and strategies to improve maternal & neonatal health services, so that a significant attention will be given to the problem.

CHAPTER TWO

2. Literature review

2.1. Birth preparedness and complication readiness and safe motherhood program approaches

Birth preparedness (BP) has been globally endorsed as an essential component of safe motherhood programs to reduce delays for care [5]. Birth preparedness and complication readiness (BP &CR) is a strategy to promote the timely use of skilled maternal and neonatal care, especially during childbirth, based on the theory that preparing for childbirth and being ready for complications reduces delays in obtaining this care [6]. Moreover, it helps to ensure that women can reach professional delivery care when labour begins. In addition, birth preparedness can help to reduce the delays that occur when women experience obstetric complications, such as recognising the complication and deciding to seek care, reaching a facility where skilled care is available and receiving care from qualified providers at the facility [5].

BP&CR and safe motherhood program approaches; Thaddeus and Maine (1994) have provided the safe motherhood community with an explanatory model of maternal mortality that identifies delays in seeking, reaching and obtaining care as the key factors leading to maternal death. This explanatory model, known as the Three Delays Model categorizes delays into three types: delays in seeking care, delays in reaching care, and delays in receiving adequate care once at the point of service [5]. Despite subtle differences in these applications of the BP/CR strategy, what they all have in common is an emphasis on the “demand side” of the equation, that is, the individual, family and community, or the users of healthcare services [5]. Her partner is the most influential decision-maker and even if others offer their opinions, he will be the one to make the final decision [5].

2.2. Awareness about birth preparedness & complication readiness

Birth preparedness is a comprehensive strategy to improve the use of skilled providers at birth and the key intervention to decrease maternal mortality [11]. Every pregnant woman faces the risk of sudden, unpredictable complications that could end in death or injury to herself or to her infant. Due to this WHO recommends that all pregnant women have a written plan for dealing with birth and any unexpected adverse events, such as complications or emergencies that may occur during pregnancy, childbirth or the immediate postnatal period [21]. Women should discuss and review this plan with a skilled attendant at every ANC assessment and one month before the expected date of birth. A birth and emergency preparedness plan includes identification of the following elements:- the desired place of birth, the preferred birth attendant, the location of the closest appropriate care facility, funds for birth-related and emergency expenses, a birth companion, support in looking after the home and children while the woman is away, transport to a health facility for the birth, transport in the case of an obstetric emergency and identification of compatible blood donors in case of emergency [6,21]. For instance, the adoption of new practices associated with planning (such as setting aside money for the birth, transport arrangements, and the use of a birth plan) at family and community levels is encouraging. The presence of a person of the woman's choice to provide social support during childbirth has also been shown to have a positive effect [21]. On the reverse in Uganda the study shows that low awareness of danger signs and birth preparedness among pregnant women admitted with pregnancy complications, which indicates a missed opportunity for health education [17]. In India result shows that 76.9% of the families saved some money and kept it aside for incurring cost of delivery and obstetric emergencies; 63.8% of the mothers identified a health facility for obstetric emergency & 29.5% Preparedness for transport for emergency [22].

In Ethiopia studies; North West, Metekel Zone study also revealed that 16.1% of the study participants know that ANC service can provide the chance to make an informed decision about the place of delivery, while 16.1%, of them knows that ANC helps to check the condition of the foetus 33.5% [1]. In addition Oromia Region, Arise zone, Robe wereda finding shows; Knowledge of respondents about preparation for birth and its complication 97.6%, 69.7%, 68.5%, 50.8% and 9.9% of the respondents were spontaneously mentioned as it is useful for birth and its complication when saving money, identified means of transportation, identified skilled provider, identified place of delivery and blood donor respectively [11]. Unlikely in Adigrat town study, 26.2%, 28.8%, 7.9% and 10.1% spontaneously identified and mentioned place of delivery, saving money, skilled provider and means of transportation, respectively. Considering both unprompted and prompted responses, identifying place of delivery, saving money, identifying skilled provider and identifying a mode of transportation were mentioned by 86.9%, 83.7%, 40.4% and 40.8% of the respondents respectively [8]. This result shows that health education on birth preparedness & complication readiness is important especially for primigravida women. Generally, in Ethiopia among pregnant women or women of reproductive age, most women were not knowledgeable about birth preparedness and complication readiness for obstetric emergencies, despite having awareness on the danger signs of pregnancy [17].

The factors associated with preparation for birth and complication were maternal education, marital status, parity, average distance to health facility, the number of antenatal care visits planning to save money & knowing ≥ 3 obstetric danger signs which (vaginal bleeding during pregnancy, foul smelling vaginal discharge and stops fetus movement) were associated with giving birth with the assistance of a skilled provider [8, 11, 14, 19].

2.3. Knowledge about Complication Readiness or Danger sign in obstetrics

The danger signs are not the actual obstetric complications, but symptoms that are easily identified by non-clinical personnel [18]. “Every pregnancy faces risks” women should be made aware of danger signs of obstetric complications during pregnancy, delivery and the postpartum. The knowledge will ultimately empower them and their families to make prompt decisions to seek care from skilled birth attendants [23]. Obstetric danger signs include persistent vomiting, severe persistent abdominal pain, vaginal bleeding during pregnancy and delivery, severe vaginal bleeding after delivery, swelling of face, fingers and feet, blurring of vision, fits of pregnancy, severe recurrent frontal headache, high grade fever, marked change in foetal movement, awareness of heart beats, high blood pressure, sudden escape of fluid from the vagina, dysuria, oliguria or anuria, prolonged labour, loss of consciousness and retained placenta [10]. Counselling on pregnancy danger signs is to be conducted according to focused antenatal care (FANC) guidelines, which include signs such as vaginal bleeding, severe headache or blurred vision, severe abdominal pain, swollen hands and face, fever, foetus movement reduced or absence and excessive tiredness /breathlessness [24].

Study in Alexandria, Egypt revealed that; slightly more than one quarter of the study subjects (26.5 %) were unaware of obstetric danger signs compared to almost the same proportion (26.0 %) that had good awareness about such signs, while 47.5 % of the study subjects exhibited fair awareness [10]. Studies conducted in Tanzania report low awareness of these danger signs among women with delivery experience only 47% of women attending antenatal visits recall having been informed of such complications [24]. Similarly in Malawi; findings showed that participants were more aware of obstetric complications that could occur in pregnancy than of complications that may occur during and after delivery. Sixty percent (60%) of the participants were knowledgeable about

obstetric complications in pregnancy but 73% and 82.2% did not know of any problems that could occur during and after the birth of the baby respectively[13].In Tanzania, Nikiema and co-workers utilized data from the Demographic and Health Survey found that in 15 of 19 sub-Saharan countries, less than half of women recalled having received information during their antenatal care about the potential danger signs of pregnancy complications [24]. A study in Malawi showed that; Fifty-eight percent (58%) of the primigravida had some knowledge and could make an informed decision to go to a health facility with pregnancy complications. However, only 24% of the primigravida had some knowledge and could make an informed decision to go to a health facility with complications after delivery [25].In West Java, Indonesia; Knowledge of Danger signs and birth preparedness revealed that awareness through the channels of mass communication leads to well informed decisions about severe bleeding as a danger sign as well as increased birth preparedness and antenatal behaviours [26].

In Ethiopia, Oromia region, Aresi zone, Robe wereda study shows that; Knowledge on danger signs during postpartum period 34.1%, 10.3% and 8.5% of the respondents spontaneously mentioned severe vaginal bleeding, foul smelling vaginal discharge and high fever as danger signs during postpartum period, respectively and 43.2% of the study participants spontaneously mentioned at least one key danger sign, 9.6% mentioned at least two key danger signs and 0.2% mentioned all three key danger signs [11]. Besides this, East Harerge, Haremaya wereda study, knowledge on obstetric key danger signs: (three and above danger sign) were mentioned only 11.2%, the second and third mentioned danger sign were prolonged labour and sever vaginal bleeding 32.7% and 29.8% respectively [27]. In Jimma zone South west Ethiopia study; all the key danger signs were known: during pregnancy 6.3%, during delivery 3.7%, postpartum 2.4% and neonate 2.1% [28]. Generally Awareness about the significance of symptoms and signs of

obstetrics complications may lead to timely access to appropriate emergency obstetric care. Obstetric nurse/ midwife plays a crucial role in promoting an awareness of the public health issues for the pregnant woman and her family, as well as helping the pregnant woman to recognize complications of pregnancy and where to seek medical assistance [10].

Lack of awareness about obstetric danger signs was related younger age, low level of education, income, gravidity and parity, previous experiences with any obstetric complications, lack of antenatal care and decision making power [10, 29].

Standard danger sign of pregnancy, labour and delivery & postpartum period are indicted below [5]

The key danger signs during pregnancy include: Severe vaginal bleeding, swollen hands/ face & blurred vision.

The key danger signs during labour and childbirth include: Severe vaginal bleeding, Prolonged labour (> 12 hours), convulsions & retained placenta.

The key danger signs during the postpartum period include: Severe vaginal bleeding, foul smelling vaginal discharge & high fever.

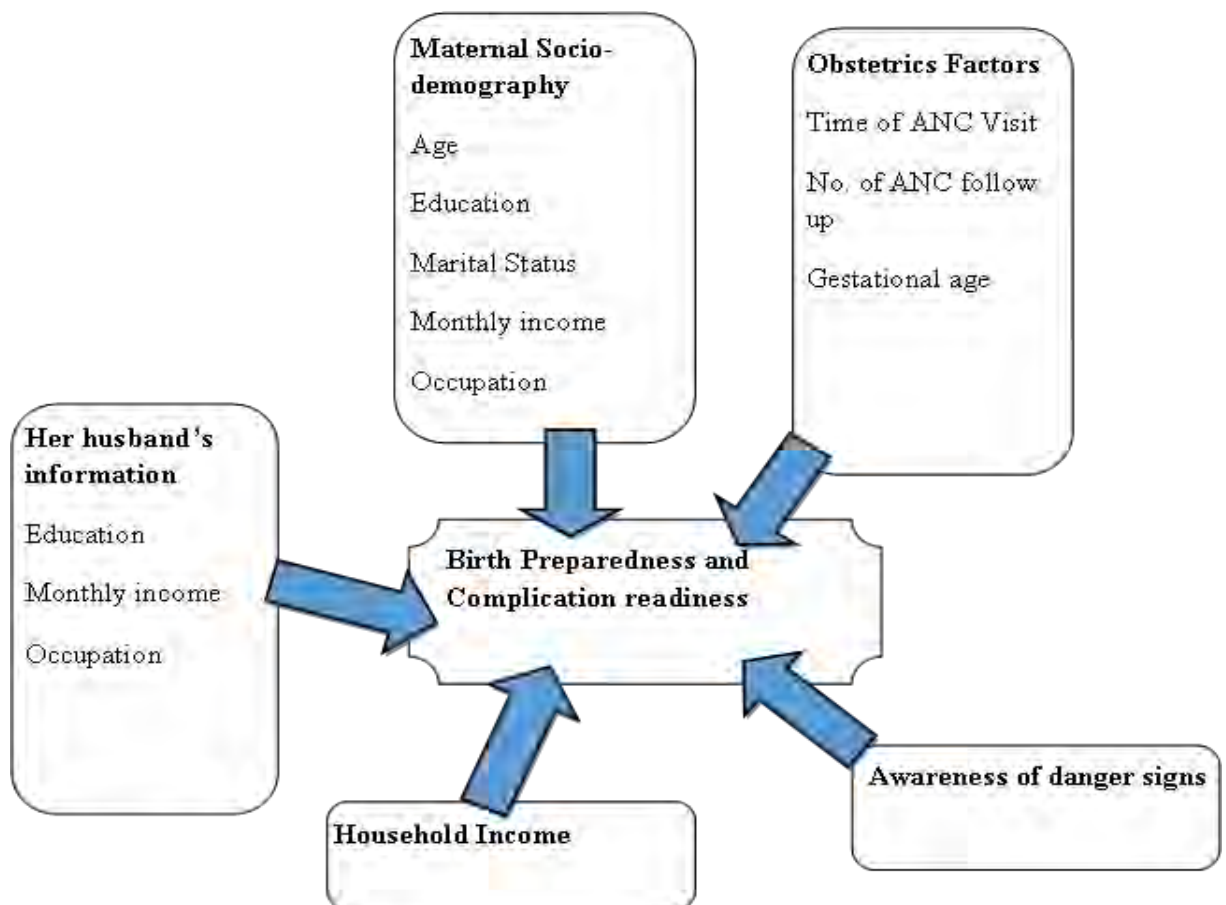
The key danger signs in the new born include: Convulsions/spasms/rigidity, difficult/fast breathing, very small baby and lethargy/unconsciousness.

2.4. Danger Signs for New born Babies

In Malawi study: knowledge about danger signs for the new born babies was known by most (14 out of 15) participants. The women were able to mention jaundice, bleeding from the cord, continuous cry, refusing to breast feed, not able to pass stool and urine, twitching, convulsions and fever [30]. Other than this, there was no any study found.

The literature review done found only those studies conducted on the pregnant mothers or those who gave birth recently. However there was no specific literature found on primigravida women.

2.5. Conceptual frame work



Source: adapted from JAPIGO monitoring of BP/CR

Figure1. Conceptual frame work of (dependent & independent variable) [5].

CHAPTER THREE

3. Objectives

3.1. General objective

- The general objective of the study was to assess the knowledge of birth preparedness and complication readiness and its associated factors among primigravida women in Addis Ababa Governmental Health Facilities.

3.2. Specific objectives

- To investigate knowledge of birth preparedness among primigravida women in Addis Ababa Governmental Health Facilities.
- To investigate knowledge of complication readiness among primigravida women in Addis Ababa Governmental Health Facilities.
- To describe factors associated with the birth preparedness and complication readiness among primigravida women in Addis Ababa Governmental Health Facilities.

CHAPTER FOUR

4. Research methodology

4.1. The study area

This research project was conducted in Addis Ababa City Government Health care facilities which were currently providing ANC service during the data collection period. Addis Ababa is the capital city of Ethiopia and the seat for the African Union. The city has a population size of over 3 million (3,101,896) with annual growth rate of 2.1%. Among the total population 2.4% women were expected to be pregnant annually [31].

The city has classified into two Administrative layers such as the Sub-City top layer followed by Woreda based on current classification [31]. Currently, Addis Ababa has ten sub cities and 116 Woreda. Each sub-city is expected to serve for a total population of 300,000 and each Woreda for 30,000 people [31]. Even though the city has fourteen Public Hospitals (14) But in under A.A City Administrative Health Bureau only 6 Hospitals and 84 Health Centres. The reason for selecting Addis Ababa Government Health Centres and Hospitals are low/free of charge for ANC service. Hence it is convenience for high flow of ANC attendance. Under each Hospital there is a catchment referral system which has maximum two under Sub-City Health Centres. Based on this the selected Hospitals and Health Centres represent the study population. The study was conducted in randomly selected Health centres and Hospitals of Addis Ababa which had been providing Antenatal Care from April 1 20—May 20, 2015.

4.2. Study design

A quantitative facility based cross-sectional study design was conducted by using client exit interview questionnaire to assess the knowledge of birth preparedness & complication readiness from primigravida women.

4.3. Source population

All primigravida women who came to attend ANC from all Government Health Facilities during data collection period.

4.4. Study population

Primigravida women attending ANC service at selected Health Facilities (Hospitals & Health centres) during data collection period.

4.5. Eligibility criteria

4.5.1. Inclusion criteria

All voluntary primigravida women, who were attending in the ANC, follow up in the study area and the study period was included.

4.5.2. Exclusion criteria

Multigravida mothers, primigravida women who were critically or mentally ill at the time of interview, could not talk or listen and those who were not willing to participate in the study was excluded from the study.

4.6. Sample Size Determination

The sample size was estimated using a single population proportion formula. Since there were no previous studies done in that area which can estimate the problems specifically in primigravida, a prevalence level that can estimate maximum sample size (50%),

marginal error (d) 0.05, with 95% confidence interval certainty and alpha error 0.05 were considered. Based on these assumptions, a total sample size was calculated using the formula as indicated below:

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

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

$$384 \times 15/100 = 58 \text{ (non response rate)}$$

$$\text{When 15\% non response rate (58) was added: } 384 + 58 = 442$$

Therefore, the total sample size was = **442**.

4.7. Sampling Procedures

Addis Ababa city Administrative Governmental Health Facilities; Hospitals & Health centres list were obtained (Health Facilities that provide basic packages of Antenatal services). To generalize the finding from the sample population to the reference population a probability sampling method was used, based on the Health Facility list, Five Health Centres & Two Hospitals were selected by simple random lottery methods of gave equal chance for each Health Centres & Hospitals. The total sample size was proportionally allocated for the Five Health Centers & Two Hospitals, depending on the client flow in each Health Facilities. Selected Health Centres daily average client flow is almost similar, which was Twenty Five and the selected Hospitals; Gandhi & Yekatite 12 client flow 75 & 35 respectively. These facilities have 22 working days in a month. This information was found from each facility responsible person of six month performance. Individual study participants; all primigravida women fulfilling the inclusion criteria was recorded for data collection.

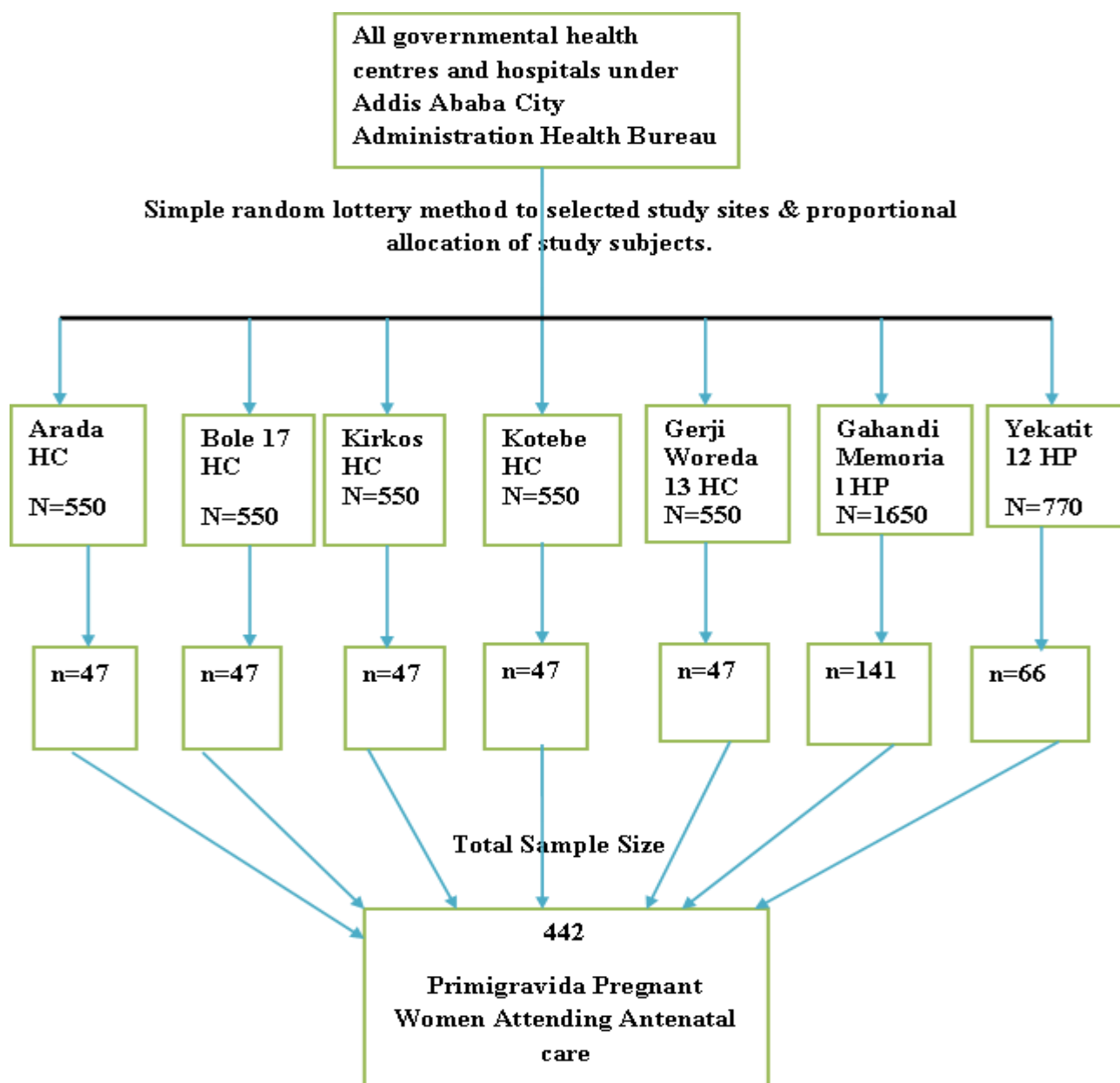


Figure 2: Framework of sampling procedure from Five Health Centres & Two Hospitals.

Hint: N=Total subjects in the study site

n=Study subject

4.8. Data collection procedure

The actual data collection was carried out from April 20-May 20, 2015. During data collection; ANC card were retrieved & reviewed then primigravida women were identified by the ANC providers and they were given identification number and showed direction to data collector.

Structured questionnaire adapted from JAPIGO BP monitoring tool, monitoring BP/CR & awareness of danger signs in Mekele town (5, 8, 17) were used in such a way that it was included all the relevant variables to meet the objectives. An individual who had very good knowledge of both English and Amharic language translate the English version to Amharic for better understanding of the enumerators and respondents. Another individual of similar ability then translated back to English to check its original meaning.

4.9. Study variable

4.9.1. Independent variables

- Socio demographic characteristics (Age, marital status, occupation, income & maternal education)
- Obstetric factors (Time of ANC visit, No. of ANC visits & Gestational age)
- Awareness of danger signs
- Husband's factors (occupation, education & income)
- House hold incomes

4.9.2. Dependent variables

Knowledge of birth preparedness and complication readiness

4.10. Operational definition/measuring scale

The operational definition or measuring scale adapted from JHPIEGO monitoring birth preparedness and complication readiness [5].

- ❖ Knowledge on birth preparedness & complication readiness: A woman is considered have knowledge on birth preparedness & complication readiness:-
- Knowledgeable about birth preparedness & its complication: A woman is considered knowledgeable if she can spontaneously mention all four components. Those are skilled providers, saved money, identified place of delivery & identified mode of transport.
- Women who know key danger signs during pregnancy: women who spontaneously mention all three key danger signs for pregnancy (Severe vaginal bleeding, swollen hands/ face & blurred vision).
- Knowledgeable on key danger signs of labour/childbirth: A woman is considered knowledgeable if she can spontaneously mention four all key danger signs for Labour/childbirth which are: Severe vaginal bleeding, Prolonged labour (> 12 hours), convulsions & retained placenta.
- Knowledgeable on key danger signs of postpartum: A woman is considered Knowledgeable if she can spontaneously mention three all key danger signs for postpartum which are (Severe vaginal bleeding, foul smelling vaginal discharge and high fever).
- Knowledge on key danger signs of the new born: A woman considered knowledgeable if she can spontaneously mention four all key danger sign of new born neonate which include: (Convulsions/spasms/ rigidity, difficult/fast breathing, very small baby and lethargy/unconsciousness).
- Primigravida women: refer to the women who are pregnant for the first time.

4.11. Data quality measurement

To keep the quality of the data a standard questionnaire were adapted, developed and 5 % pre test done for accuracy and consistency on primigravida women outside the study facilities. In data collection seven data collector (diploma in nursing) & three supervisors (BSc in nursing) were participated. The selected data collectors were familiarized with the questionnaire by obtaining one day orientation on the objective of the study and the content of the instrument. Before providing exit interview the data collectors were taking consent from clients through questioning if they were willing to participate or not. The principal investigator was follow and supervised the enumerators throughout the data collection period. During data collection process each questionnaire was checked daily by the supervisor and principal investigator for its completeness.

4.11.1. Pre- test

The questionnaire was tested for the relevance of dependent and independent variables to avoid any confusion during actual data collection period. The principal investigator and some data collectors were checked Twenty Two Antenatal care Attendants (5%) of primigravida women response one week prior to the actual data collection period outside the study facilities, in Yeka Sub-City, wereda 11 Health Centre. This was helpful for the investigator to screen out vague questions and to modify them as soon as possible.

4.12. Data analysis procedures (data entry and analysis)

Data was entered & coded into a computer using Epi Data version 3.1 then exported to SPSS version 20 and analyzed. Descriptive statistics with frequency, percentages, table's graphs and cross-tabulations were used. In addition, logistic regression statistical models was used for analysis & the link of covariates with the knowledge of study participants towards BP & CR was estimated using logistic regression models of Crude & Adjusted

odds ratio with 95% confidence intervals of p values <0.05 was calculated to identify associated factors & logistic regression tables were also used to present the data.

4.13. Ethical issue

Ethical clearance and permission was obtained from the Institutional Review Board (IRB) of the School of Allied Health Sciences, Department of Nursing and Midwifery, Addis Ababa University, Addis Ababa Health Bureau and study facility before the actual data collection process started.

Respondents were informed about the purpose of the study and the importance of their participation in the study. Participants were informed as they can skip question/s that they did not want to answer partially or fully and also to stop at any time if they want to do so. After assuring the confidentiality of the information given by each respondent and obtaining informed consent from the participant, data collection was started with strict privacy.

4.14. Dissemination of finding

This study upon completion will be serving as resource material for researchers, managers, policy makers etc. To reach these targets, the final copy of this study will be given to school of Nursing and Midwifery, Addis Ababa University. Besides, it will be given to AARHB, FMOH and NGOS working around maternal health in the city. This will be accomplished through presenting the finding at the appropriate meetings, seminars, workshops and publishing in scientific journals.

CHAPTER FIVE

5. Results

5.1. Socio -demographic characteristics of the participants

This study was conducted on a total of 422 primigravida women those who came for ANC service in Health Centres & Hospitals. Out of these 422(100%) 347 (82.6%) were between in the age range of 21 and 32. Majority of the participants 359 (85.1%) were married. There were 287 (68%) participants followers of Orthodox Christian Religion. In addition to these almost half 187 (44.3%) of the participants were from Amhara ethnic group. Besides these majority of participants 151 (35.8%) were house wives and 247 (58.5%) had secondary educational status and above. The rest 60 (14.2%) were illiterate. Details are provided in Table1.

Table1: Distribution of socio-demographic variables of respondents in Addis Ababa Government Health Facilities, (n=422) May, 2015.

Variable	Frequency	Percent
Age in years		
15-20	46	10.9
21-26	189	44.8
27-32	158	37.8
33+	29	6.9
Total	422	100
Marital status		
Married	359	85.1
single	44	10.4
widowed	14	3.3
divorced	5	1.2
Total	422	100
Religion		
Orthodox	287	68.0
protestant	81	19.2
Muslim	52	12.3
(others)	2	0.5
Total	422	100
Ethnicity		
Amahara	187	44.3
Oromo	100	23.7
Gurage	58	13.7
Tigre	51	12.1
Siltie	16	3.8
(others)*	10	2.4
Total	422	100
Occupation		
Housewife	151	35.8
Gov. employee	101	23.9
Pvt. employee	109	25.8
Pvt. business	53	12.6
(others)**	8	1.9
Total	422	100
Educational status		
Illiterate	60	14.2
primary	115	27.3
secondary &above	247	58.5
Total	422	100

*wolayita, **Daily labourer

5.1.1. Socio economic characteristics of the participants

Concerning the socio economic background of the participants (N=422), shows that 182 (44.5%) got a monthly income between 1000.00 - 3000.00 birr. There were almost similar figure 90 (21.3%) and 92 (21.8%) had no any monthly income & less than 1000.00 birr income respectively. On the other hand majority of them 294 (79.9%) participants' husband have secondary education and above. The rest 74(20.1%) were illiterate & primary educational level. Majority of the husbands 153 (36.3%) and 120(28.4%) employed in the Private and Government Sectors respectively. Almost half of the participant's husbands earn monthly income between 1000.00 - 3000.00 birr. More than half of the participants 231 (54.9%) had one or two family members. As a cumulative half of the participants 212 (50.2%) had more than 3000.00 birr household monthly income. Table 1 summarizes these findings as shown below.

Table1: Distribution of socio- economic variables of respondents in Addis Ababa Government Health Facilities, (n=422) May, 2015.Cont'd.

Variable	Frequency	Percent
Her monthly Income		
<1000 birr	90	21.3
1000-3000 birr	182	44.5
>3000 birr	52	12.3
None	92	21.8
Total	422	100
Husband educational status		
Illiterate	18	4.9
primary	56	15.2
Secondary &above	294	79.9
Not having husband	54	12.8
Total	422	100
Husband occupation		
Government employee	120	28.4
Private employee	153	36.3
Business man	90	21.3
Other	5	1.2
Not having husband	54	12.8
Total	422	100
Husband income		
1000 birr	78	21.1
1000-3000 birr	175	47.6
>3000 birr	115	31.3
Not having husband	54	12.8
Total	422	100
Family size		
1-2	231	54.9
3-4	164	38.9
>4	27	6.4
Total	422	100
House hold income		
1000 birr	54	12.8
1000-3000 birr	156	37.0
>3000 birr	212	50.2
Total	422	100

5.2. Obstetric Characteristics of the Respondents

A total of 286 (67.8%) primigravida women were found to receive ANC within 1 to 4 months. Among all the primigravida women, 175 (41.5%) had more than 7 months Gestational age. From the total, 248 (58.8%) of them had 2 - 3 times ANC follow up. Details show in Table 2.

Table 2: Obstetric characteristics of the respondents, in Addis Ababa Government Health Facilities, (n=422) May, 2015.

Variable	Frequency	Percent
First received ANC (in month)		
1-4	286	67.8
5-7	118	28
>7	18	4.2
Total	422	100
Gestational age (in month)		
1-4	88	20.9
5-7	159	37.7
>7	175	41.4
Total	422	100
Number of ANC follow up		
1	102	24.2
2-4	248	58.8
> 4	72	17.0
Total	422	100

5.3. Knowledge of danger signs during pregnancy

According to the awareness found from participant primigravida women, two third of the participants 355 (84.1%) knew about serious health problem/s that can occur during pregnancy and that could endanger the life of pregnant women. The rest of the participants don't know those signs. Out of those who had awareness, majority of them 319 (75.6%) mentioned vaginal bleeding as danger sign of pregnancy. In addition 288 (61.1%) severe headache, 211 (50%) blurred vision, 216 (51.2%) mentioned swollen hands and face as danger sign of pregnancy. On the other hand, 74(17.5%), 89 (21.1%) and 81 (19.2%) of the

participants reported abdominal pain, high fever and reduced foetal movement respectively.

Details are present in Table 3 below.

Table 3: Knowledge about danger signs of pregnancy among primigravida women in A.A. Government Health Facilities, May, 2015.

Variables	Response	Frequency	Percent
know any /some serious health problem/s that can occur during pregnancy that could endanger the life of pregnant women (n=422)	Yes	355	84.1
	No	36	8.5
	Don't know	31	7.3
Mention vaginal bleeding as danger sign during pregnancy (n=355)	Yes	319	75.6
	No	36	8.5
Mention severe head ace as danger sing during pregnancy (n=355)	Yes	288	61.1
	No	97	23.0
Mention blurred vision as danger sing during pregnancy (n=355)	Yes	211	50.0
	No	144	34.1
Mention severe abdominal pain as danger sing during pregnancy (n=355)	Yes	74	17.5
	No	281	66.6
Mention swollen hands and face as danger sign during pregnancy (n=355)	Yes	216	51.2
	No	139	32.9
Mention fever as danger sign during (n=355)	Yes	89	21.1
	No	266	63.0
Mention Foetus movement reduced or absence and Excessive danger sign during pregnancy (n=355)	Yes	81	19.2
	No	274	64.9
			84.1

Mentioned more than one response

5.4. Knowledge of Danger signs during labour/childbirth

With regard to serious health problem/s that can occur during labour and child birth that could endanger the life of pregnant women, three-fourths of them 302 (71.6%) respondents had awareness. Out of these 302 primigravida women, 278 (65.9%) mentioned vaginal bleeding

& also half of them, mentioned severe headache as danger sign. The respondents who have mentioned convulsion as danger sign were 128 (30.3%) while those who have state fever were 81(19.2%). On the other hand 53 (12.6%) of the respondents have revealed loss of consciousness as danger sign. Among the respondents 144 (34.2%) expressed labour lasting more than 12 hours as danger sign. Out of those 302 primigravida women respondents 82 (19.4%) have mentioned placenta not delivered 30 minutes after the neonate as their danger sign. There were 5 (1.2%) respondents who have cited fluid coming out of their vagina as danger sign. Details are found in Table 4 below.

Table 4: Knowledge about danger signs of labour/childbirth among primigravida women in Addis Ababa Government Health Facilities, May, 2015.

Variables	Response	Frequency	Percent
Any/ some serious health problem/s that can occur during labour and child birth that could endanger the life of pregnant women (n=422)	Yes	302	71.6
	No	65	15.4
	Don't know	55	13.0
Mention vaginal bleeding as danger sing during labour and delivery (n=302)	Yes	278	65.9
	No	24	5.7
Mention severe head ache as danger sing during Labour and delivery (n=302)	Yes	152	36.00
	No	150	35.00
Mention convulsion as danger sing during Labour and delivery (n=302)	Yes	128	30.3
	No	174	41.2
Mention fever as danger sign during Labour and delivery (n=302)	Yes	81	19.2
	No	221	52.4
Mention Loss of consciousness as danger sign during Labour and delivery (n=302)	Yes	53	12.6
	No	249	59.00
Mention Labour lasting>12 hours (n=302)	Yes	144	34.2
	No	158	37.4
Mention placenta not delivered 30 minutes after the neonate as danger sign during Labour and delivery (n=302)	Yes	82	19.4
	No	220	52.1
(Others)*(n=302)	Yes	5	1.2
	No	297	70.4

Mentioned more than one response

* Rapture of amniotic fluid, back ache

5.5. Knowledge of danger signs during post partum

Out of 422 respondents, 266 (63.0%) stated that they knew the information about danger signs during postpartum period. From those who had the knowledge, 234(55.5%) reported vaginal bleeding and 155 (36.7%) sever head ache as a danger sign. There were also 119 (28.2%) of the respondents who mentioned blurred vision as danger sign during post partum period. Out of the 266 respondents, who knew about danger signs during post partum period, 78 (18.5%) have reported convulsion as danger sign. Details are found in Table 5 below.

Table 5: Knowledge about danger signs of first 42 days after birth among primigravida women in A. A. Government Health Facilities, May, 2015.

Variables	Response	Frequenc y	Percen t
Danger sign during the first 42 days after birth that could endanger the life of pregnant women (n=422)	Yes	266	63.0
	No	71	16.8
	Don't know	85	20.1
Mention heavy vaginal bleeding as danger sing during postnatal period (n=266)	Yes	234	55.5
	No	32	7.5
Mention severe head ache as danger sing during postnatal Period (n=266)	Yes	155	36.7
	No	111	26.3
Mention Blurred vision as danger sing during postnatal (n=266) Period (n=266)	Yes	119	28.2
	No	147	34.8
Mention convulsion as danger sing during postnatal period (n=266)	Yes	78	18.5
	No	188	44.5
Mention oedema as danger sing during postnatal period (n=266)	Yes	92	21.8
	No	174	41.2
Mention fever as danger sign during postnatal period (n=266)	Yes	89	21.1
	No	177	41.9
Mention fainting as danger sign during postnatal period (n=266)	Yes	42	10.0
	No	224	53.0
Mention breathing problem as danger sign during postnatal Period (n=266)	Yes	52	12.3
	No	214	50.7
Mention weakness as danger sign during postnatal period (n=266)	Yes	57	13.5
	No	209	49.5
Mention foul smelling vaginal discharge as danger sign during postnatal period (n=266)	Yes	132	31.3
	No	134	31.8
(Others)* (n=266)	Yes	6	2.3
	No	260	60.7

Mentioned more than one response

*Loss of appetite, abdominal cramp.

5.6. Knowledge about danger signs of new born neonate

From 422 respondents, 277 (65.6%) stated that they knew the information about danger signs of new born neonate. Out of those respondents who knows about danger signs, 96 (22.7%) reported convulsion as danger sign & 116 (39.3%) mentioned very small baby as danger sign of new born neonate. Out of the 277 respondents who knew about danger signs of new born neonate, 98 (23.2%) have reported lethargy or loss of consciousness as danger sign. The respondents who mentioned difficulty of breathing were 185 (43.8%). Details are show in Table 6 below.

Table 6: Knowledge about danger signs of new born neonate among primigravida women, in Addis Ababa Government Health Facilities, May, 2015.

Variable	Response	Frequency	Percent
Danger sign of new born neonate birth that could endanger the life of neonate (n=422)	Yes	277	65.6
	No	70	16.6
	Don't know	75	17.8
Convulsions/spasms/rigidity (n=277)	Yes	96	22.7
	No	181	42.9
Very small baby (n=277)	Yes	166	39.3
	No	111	26.3
Lethargy/unconsciousness (n=277)	Yes	98	23.2
	No	179	42.4
Difficult/fast breathing (n=277)	Yes	185	43.8
	No	92	21.8
(Others) * (n=277)	Yes	19	4.5
	No	258	61.1

Mentioned more than one response *crying & hungry

5.7. Source of information about Birth Preparedness

Out of 422 respondents, 375 (88.9%) stated that they heard the word birth preparedness the rest respondents didn't heard about birth preparedness, while 13 (3.1%) expressed as they don't know about it. Out of 375 respondents who heard about the word birth preparedness, 315 (74.6%) have reported as they heard from the health professional. The respondents who mentioned CHW were 25 (5.9%). These respondents who heard about birth preparedness from HEW were 70 (16.6%). Out of those 375 mentioned the media as source of information were 8 (1.9%). Those 145 (34.4%) got information from their family. The respondents expressed other sources such as friends and neighbours accounts 9 (2.1%). Details are found in figure 3 below.

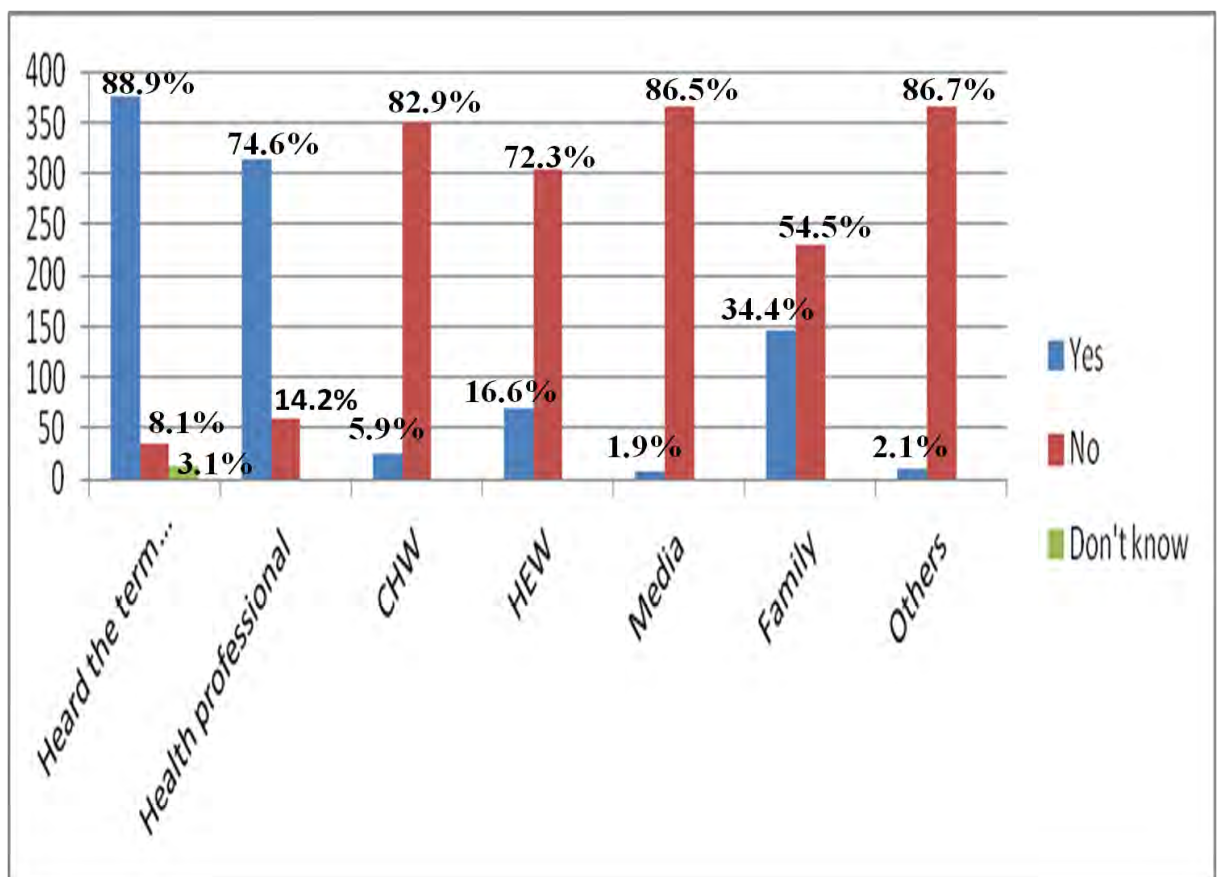


Figure 3: Source of information about birth preparedness, in A.A. Government Health Facilities (n=422), May, 2015.

*Others; friend, neighbours
Mentioned more than one response

5.8. Knowledge of respondents about preparation for birth and its complication

Among 422 participants, 212 (50.2%) reported that they knew about identifying their place of birth. Out of all 422 respondents who knew about birth preparedness and its complication readiness, 289 (68.5%) reported as they expressed why to save money. The respondents who knew to identify skilled health care provider constitutes 119 (28.2%). Majority of them 253(60%) had reported as they knew about danger sign of obstetrics. Almost half 196 (46.4%) of the respondents mentioned arranging means of transportation for emergency. On the other hand 68 (16.1%) of participants knew about the means of transportation for birth. Out of all 422 respondents,129 (30.6%) of primigravida women expressed to arrange a way of communication to the source of help. It was only 48 (11.4%) respondents knew to arrange compatible blood donors. Details are found in Table 7 below.

Table 7: Knowledge about birth preparedness and complication readiness among primigravida women in A.A Government Health Facilities, (n=422) May, 2015.

Variables	Response	Frequency	Percent
Identify place of delivery	Yes	212	50.2
	No	210	49.8
Saving money	Yes	289	68.5
	No	133	31.5
Identify skilled health care provider	Yes	119	28.2
	No	303	71.8
Means of transportation for emergency	Yes	196	46.4
	No	226	53.6
Arranging a way to communicate with a source of help	Yes	129	30.6
	No	293	69.4
Means of transportation for birth	Yes	68	16.1
	No	354	83.9
Awareness on danger sign of obstetrics	Yes	253	60.0
	No	169	40.0
Identify compatible blood donors	Yes	48	11.4
	No	374	88.6
(Others)*	Yes	20	4.7
	No	374	88.6

Mentioned more than one response * to prepare porridge flour, baby cloths

5.9. Well knowledgeable on birth preparedness & complication readiness

From 355(84.1%) of primigravida women, 113 (26.8%) were knowledgeable on danger signs during pregnancy. Among 302(71.6%) primigravida women 47 (11.1%) were knowledgeable on danger signs during delivery. Besides to these, out of 266 (63%) of

respondents 60 (14.2%) were found being knowledgeable on identifying danger signs during post partum period.

Out of 277(65.6%) of the respondents 46 (10.9%) of the responds were knowledgeable about danger signs of new born. However, from 422 respondents it was only 64 (15.2%) who were knowledgeable about birth preparedness& complication readiness. Details are found in Table 8 below.

Table 8: Respondents considered knowledgeable and well prepared for birth and it's Complications among primigravida women in Addis Ababa Government Health Facilities, May, 2015.

Variables	Response	Frequency	Percent
Knowledgeable about danger sign during Pregnancy(n=355)	Yes	113	26.8
	No	242	57.3
Knowledgeable about danger sign during labour and delivery(n=302)	Yes	47	11.1
	No	255	60.2
Knowledgeable about danger sign during Postnatal(n=266)	Yes	60	14.2
	No	206	48.6
Knowledgeable about danger sign of new born(n=277)	Yes	46	10.9
	No	231	54.7
Knowledgeable about birth preparedness & complication readiness (n=422)	Yes	64	15.2
	No	358	84.8

5.10. Pregnancy Related Topics Provided for Primigravida Women

From the total 422 respondents almost all 390 (92.4%) were provided with education about danger sign. There were also 363 (86.0%) who have learned about PMTCT. The respondents who got awareness about early and exclusive breast feeding were 394 (93.4%). While 220 (52.1%) of the respondents taught about sleeping under ITN and 265

(62.8%) of the respondents got lesson about parenting skills. Other topics were provided for more than two third of the respondents. Shows inTable 9.

Table 9: Respondents for provided pregnancy related topics among primigravida women in Addis Ababa Government Health Facilities, (n=422) May, 2015.

Variables	Response	Number	Percent
Danger sign	Yes	390	92.4
	No	32	7.6
PMTCT	Yes	363	86.0
	No	59	14.0
Early and exclusive breast feeding	Yes	394	93.4
	No	28	6.6
Smoking cessation avoidance of alcohol, drugs and harm full practice	Yes	389	92.2
	No	33	7.8
Hygiene	Yes	340	80.6
	No	82	19.4
Sleep under ITN	Yes	220	52.1
	No	202	47.9
Family planning	Yes	377	89.3
	No	45	10.7
Birth& Complication readiness	Yes	349	82.7
	No	73	17.3
Next appointment time	Yes	408	96.7
	No	14	3.3
Parenting skills	Yes	265	62.8
	No	157	37.2

Mentioned more than one response

5.11. Association factors with their knowledge of birth preparedness & complication readiness

5.11.1. Association of maternal socio-demographic variables with their knowledge of birth preparedness & complication readiness

In the bivariate & multivariate analysis significant association was observed between the marital status of mothers and their knowledge about birth preparedness & complication readiness. Married mothers were 0.11 times less knowledgeable about birth preparedness & complication readiness than those who were unmarried [AOR=0.110, 95%CI (0.026-0.461); $p<0.05$]. Others maternal socio demographic variables did not have association. Details are shown in Table 10.

Table 10: Association of maternal socio-demographic variables with their knowledge on birth preparedness and complication readiness among primigravida women in Addis Ababa Government Health Facilities, May, 2015.

Variable	Knowledge of birth preparedness & complication readiness				
	Category	Yes	No	COR(95%CI)	AOR(95%CI)
Age	15-20	5	41	1	
	21-26	31	158	1.609(0.589,4.396)	
	27-32	26	132	1.615(0.583,4.476)	
	33+	2	27	0.607(0.110,3.359)	
	Total	64	358		
Marital status	Married	48	311	0.453(0.238,0.863)*	0.110(0.026-0.461)*
	Not Married	16	47	1	
	Total	64	358		
Her educational status	Illiterate	10	50	1	
	primary	19	96	0.990(0.428,2.289)	
	secondary & above	35	212	0.825(0.383,1.778)	
	Total	64	358		
	Her occupation	House wife	26	125	1
Gov't.& Private employee		31	179	0.833(0.471,1.471)	
Non employee		7	54	0.623(0.255,1.523)	
Total		64	358		
Her monthly income	None	15	77	1	
	<1000.00 birr	11	79	0.715(0.309,1.654)	
	1000-3000.00 birr	161	27	0.861(0.433,1.711)	
	>3000.00 birr	41	11	1.377(0.580,3.272)	
	Total	228	194		

*p value <0.05

5.11.2. Association of husband socio-demographic & maternal obstetrics factors with their knowledge on birth preparedness & complication readiness

In the bivariate & multivariate analysis significant association was observed between household monthly income and their knowledge about birth preparedness and complication readiness. As family monthly household income 1000-3000.00 birr three times more knowledgeable about birth preparedness and complication readiness than who got more than three thousand birr [AOR=3.362(1.203, 9.393); $p<0.05$]. But others husband socio demographic variables & maternal obstetrics factors had not any association with birth preparedness & complication readiness. Details are shown in Table 11.

Table 11: Association of husband socio-demographic and obstetrics factors with their knowledge on birth preparedness & complication readiness among primigravida women in Addis Ababa. Government Health Facilities, May, 2015.

Variable	Knowledge of birth preparedness & complication readiness				
	Category	Yes	No	COR(95%CI)	AOR(95%CI)
Husband education (N=368)	Illiterate	2	16	1	
	primary	8	48	1.33(0.256,6.940)	
	secondary &above	38	256	1.187(0.263,5.37)	
Husband Occupation (n=368)	Gov't. & Private employee	37	236	1.197(0.58,2.454)	
	Nonemployee	11	84	1	
Husband monthly income (n=368)	<1000.00 birr	13	65	0.833(0.401,1.730)	
	1000-3000.00 birr	25	150	0.476(0.197,1.149)	
	>3000.00 birr	10	105	1	
Household Income (n=368)	<1000.00 birr	10	44	1.963(0.868,4.440)	1.040(0.178,6.088)
	1000-3000.00 birr	32	124	2.229(1.238,4.013)*	3.362(1.203,9.393)*
	>3000.00 birr	22	190	1	
Start ANC (in month) (n=422)	<4	44	242	1.455(0.323,6.549)	
	5-7	18	100	1.440(0.305,6.807)	
	>7	2	16	1	
Gestational Age (n=422)	1-4	15	73	1	
	5-7	18	141	0.621(0.296,1.304)	
	>7	31	144	1.048(0.532,2.063)	
No. of ANC visit (n=422)	1	18	84	1	
	2-4	34	214	0.741(0.397,1.385)	
	>4	12	60	0.933(0.419,2.081)	

*p value <0.05

5.11.3. Association between maternal knowledge of danger signs & their knowledge on birth preparedness & complication readiness

On binary logistic regression, knowledge of danger signs during pregnancy, child birth/ labour, postnatal and neonatal period were found to have statistically significant association with birth preparedness and complication readiness.

Multiple logistic regression analysis was also computed to control the possible confounder, explores the association between independent variables and birth preparedness and complication readiness. Knowledge of danger signs during child birth/ labour, postnatal period were significantly associated with birth preparedness & complication readiness. The adjusted odd ratio of birth preparedness and complication readiness was almost four times greater among knowledgeable for key danger signs of labour when compared to not knowledgeable. [AOR = 3.685, 95% CI (1.157, 11.737); $p < 0.05$]. Additionally, the adjusted odd ratio of birth preparedness and complication readiness among knowledgeable respondents about key danger signs during postpartum period were five times more than when compared to those who lack knowledge about it [AOR=5.117,95%CI (1.388,18.863); $p < 0.05$]. Details are found in Table 12 below.

Table 12: Association between maternal knowledge of danger signs & their knowledge on Birth preparedness & complication readiness among primigravida women in Addis Ababa Government Health Facilities, May, 2015.cont'd

Variable	Knowledge of birth preparedness & complication readiness			
	Category		COR(95%CI)	AOR(95%CI)
Knowledge status of danger signs during pregnancy (n= 355)	Not knowledgeable	242	1	1
	Knowledgeable	113	3.003(1.67,5.379)	1.389(0.517,3.729)
Knowledge status of danger signs during labour (n=302)	Not knowledgeable	255	1	1
	Knowledgeable	47	6.821(3.387,13.733)	3.685(1.157,11.737)*
Knowledge status of danger signs during postpartum period (n=266)	Not knowledgeable	206	1	1
	Knowledgeable	60	6.561(3.259,13.208)	5.117(1.388,18.863)*
Knowledge status of danger signs during neonatal period (n=277)	Not knowledgeable	231	1	1
	Knowledgeable	46	7.556(3.738,15.271)	1.694(0.533,5.385)

COR: Crud Odds Ratio

AOR: Adjusted Odds Ratio

*p value < 0.05

CHAPTER SIX

6. Discussion

This study was conducted to assess the knowledge of birth preparedness and complication readiness among primigravida women in Addis Ababa Governmental Health Facilities. Birth Preparedness and Complication Readiness (BP&CR) is a strategy to promote the timely use of skilled maternal and neonatal care, especially during childbirth, based on the theory that preparing for childbirth and being ready for complications reduces delays in obtaining this care [5].

Knowledge of danger signs of obstetric complications during pregnancy, labour, postnatal and neonate period is the first essential step for appropriate and timely referral [11]. The findings of the study has provided an insight information on primigravida women's knowledge about birth preparedness & complication readiness in the study area, which could helps to design appropriate interventions and as a base for further wide scale studies in the country.

6.1. Knowledge of respondents about danger signs during pregnancy

In this study the proportion of respondent who reported that they have information about danger signs of pregnancy were 355(84.1%); this is higher compared to mekelle town study which is 79.9% out of 422 pregnant women [13]. On the other hand only 113(26.8%) of respondents were knowledgeable. From those spontaneously mention knowledge of danger signs during pregnancy is; only 319 (75.6%) mentioned vaginal bleeding, this was high compared to the study done in Malawi 62% [25], & very high when compared to studies in Adigrat town, North part of Ethiopia 10.9% out of 534 pregnant women [8] and in Robe wereda, Arise zone 10.1% out of 575 pregnant women [11]. The second & third key danger signs mentioned were swollen hands& face which is

216 (51.2%) & blurred vision 211 (50%) respectively. This is high comparing with the study done in Robe wereda, Aresi zone 2.2 % & 37.7% [11]. In this study 168 (39.8%), 187(44.3%) & 113 (26.8%) spontaneously mentioned at least one, two & all three key danger signs of pregnancy respectively. In contrary 15.4% spontaneously mentioned at least one key danger sign, 2.6% mentioned at least two key danger signs and 0.4 % mentioned all three key danger signs [8]. These difference might be due to geographically; health facilities proximity, health facilities availability, parity & use of methodology. In this result most of the primigravida women have information on danger sign of pregnancy.

6.2. Knowledge on danger signs during labour/childbirth

The primigravida women that have information on key danger signs during labor /child birth 302(71.6%). Among these 47(11.1%) of respondents were found knowledgeable. From 302 respondent, spontaneously mention knowledge of danger signs during child birth were; vaginal bleeding 278 (65.9%), labor lasting more than 12 hours 144 (34.2%), convulsion 128 (30.3%) & the placenta not delivered 30 minutes after the neonate 47(11.1%). This finding was higher than the study of Uganda, Mulago hospital, Profuse vaginal bleeding 11.4, Prolonged labor longer than 12 hrs 1.5%, Convulsions 0.5% & Retained placenta 0.7%. In this study only 137(32.5%) mentioned at least one key danger sign, 79(18.7%) mentioned at least two key danger signs, 58 (13.7%) mentioned at least three key danger signs & 47(11.1%) spontaneously mentioned all four key danger signs of labor/ child birth but in Nigeria study showed high which is 19.62% [32]. On the other side in Adigrat town, North Ethiopia study 23.8% of respondents spontaneously mentioned at least one key danger sign, 7.3% mentioned at least two key danger signs, 3.9% cited at least three key danger signs & only 0.2% respondent named all four key

danger signs [8]. This variation might be due to socio cultural, client awareness, study period & parity.

6.3. Knowledge on danger signs during post partum period

In this study the primigravida women 266 (63%) that have information on danger signs during post partum period. From these 60 (14.2%) of respondents were knowledgeable and those spontaneously mention knowledge of danger signs during post partum period mentioned were; vaginal bleeding 234 (55.5%), foul smelling vaginal discharge 132 (31.3%) & high fever 89 (21.1%). This result were relatively high compared to Uganda study; severe vaginal bleeding 27.1%, foul smelling vaginal discharge 18.7% & high fever 10.1% [17]. In addition in this study; 166 (39.3%) spontaneously mentioned at least one key danger sign & mentioned at least two key danger signs 78(18.5%). Those mentioned all the three key danger signs were 60 (14.2%), while in Nigeria study had better 21.73% [32]. On the contrary Adigrat town, North Ethiopia study; only 15.4% spontaneously mentioned at least one key danger sign, 2.6% mentioned at least two key danger signs and 0.4 % mentioned all three key danger signs [8]. These result discrepancy might be due to parity, socio cultural, client awareness & time of maternal intervention . In this finding, the knowledge of danger signs during pregnancy, labor & postpartum more than half of the respondent mentioned vaginal bleeding as a danger sign.

6.4. Knowledge on danger signs during neonatal period

In this study 277(65.6%), who reported that they have information about danger signs during neonatal period, only 40 (10.9%) of respondents are knowledgeable. This shows little difference from post partum period of the respondents which is 266 (63%). From 277 (65.5%). Spontaneously mentioned knowledge of danger signs during neonatal period, only 185 (43.8%) disclosed that difficulty or fast breathing, this is low compared to the

study done in Aleta wondo district, Sidama zone, Southern Ethiopia 49.4% [33]. In line with this study that; very small baby 166 (39.3%), lethargy/ unconsciousness 98(23.2%) & convulsion/spasm 96 (22.7%). In addition, 109 (25.8%) of respondents spontaneously mentioned at least one key danger sign, 86 (20.4%) mentioned at least two key danger signs, 50 (11.8%) cited at least three key danger signs. Particularly in Malawi study, three times more which is 6 out of 15(40%) mother were able to mention more than three danger signs [30]. Finally 46 (10.9%) respondent named all four key danger signs of neonate. This finding was almost similar with the study done in Nigeria, 13.3% [32]. The similarity might be due to similar maternal & child health intervention. Generally, obstetrics danger signs are preventable & avoidable. The respondents knowledge on obstetrics complications were low. The participants who were knowledgeable about obstetric complications during pregnancy better than in postnatal, in labour/ child birth & neonatal period which are 113(26.8%), 60(14.6%), 47(11.1) & 46 (10.9%).This indicates the need of concerned effort in increasing the awareness & knowledge of pregnant mothers and particularly to the primigravida women.

6.5. Knowledge of birth preparedness & complication readiness

Birth preparedness and complication readiness (BP/CR) is a relatively common strategy employed by numerous groups implementing safe motherhood programs [5].

From 442 primigravida women, 375 (88.8%) of the respondents speak out that they heard the term birth preparedness. This finding was high compared to Basoliben district, Amhara Regional State, North West Ethiopia study 393(76%) [34]. The source of information to heard the term birth preparedness are a health profession, family, HEW,CHW, media & others which is 315 (74.6%), 145(34.4%), 70 (16.6%) 25 (5.9%) &17(4%) respectively. In this study the primigravida women that have information 375(88.8%) on four key birth preparedness & its complications which are: to identify place of delivery, to identify skilled

birth attendant, means of transportation and saving money mentioned 64 (15.2%). This finding was almost similar with Robe wereda 16.5% [11] & Goba woreda, Oromia region, Ethiopia 14.6% [7].

From this spontaneously mentioned knowledge of birth preparedness, saving money for emergency & child birth is 289 (68.5%) have similarity with Goba woreda, Oromia region, Ethiopia 69.6% [7]. In addition this study finding is much better than Adigrat town, North Ethiopia 28.8% [8] but lower than Robe wereda, Arise zone 96.7% [11]. To identifying place of delivery very important especially in our setup. The skilled care provider for attending birth could be if she planned to deliver at the health institution. Half of the respondents revealed to identify place of delivery which mean 212(50.2) which is almost similar with the finding of Arisi zone Robe wereda 50.8% [11]. In contrast to results from Adigrat town, Northern Ethiopia, it is high 50.2% VS 26.2% [8]. Even when she identify place of delivery, it can be difficult secure transport at the time of emergency. In this finding, Two hundred two (47.9%) of respondents spontaneously mentioned means of transportation for emergency & child birth which is lower than study done in Robe wereda 69.7% [11] but higher than Adigrat study [8]. The respondents cited about skilled birth attendants only 119 (28.2%) which is lower than Robe wereda study 68.5% [11] on the contrary higher than Adigrat town finding which was 7.9% [8]. The difference of the result in this regard might be due to geographical, cultural, parity, used methodology & other infrastructures. However, it seems some of the respondents consider that anything which is done before child birth like preparing flour for porridge & prepare cloth for new born baby rather than recommended elements which have to be done as birth preparedness.

Generally, most of the respondent they heard the term birth preparedness. Majority of these participants information got from health professionals and their families. According to this study finding, more than three fourth of the primigravida women had not comprehensive

knowledge on birth preparedness and its complication it also all the primigravida women have not any past experience for birth preparedness & complication readiness. Therefore they have to know at least key elements of BP & CR. These may facilitate early decision & arrival to health facilities if they have any obstetrics problems.

6.6. Factors associated with birth preparedness and complication readiness

In the bivariate analysis 6 independent variables were significantly associated with birth preparedness and complication readiness at p value <0.05 . In this finding associated factors with birth preparedness & complication readiness by COR; the marital status, monthly house hold incomes, knowledgeable for all key danger signs were significant. But by AOR; only marital status, monthly house hold incomes, knowledge on key danger signs of labour/child birth & postnatal period were retained, therefore only these independent variables have association for knowledge of birth preparedness & complication readiness. Married women were [AOR=0.110(0.026-0.461); $p<0.05$] less likely to have knowledge of birth preparedness & complication readiness compared to unmarried women. This finding is unlikely to Adigrat town; Northern Ethiopia [8]. This might be the different in sample size response. In Adigrat study among 534 women, 480 (89.9%) respondents 115 (23.9%) were married and 54 (10%) women were unmarried from this only 3(5.5%) who were unmarried who have knowledge about birth preparedness & complication readiness. In the contrary in this study, among 422 women those who are married 359 (85.1%) from this only 48 (13%) & not married 63 (14.9%), (Single, divorced & widowed) from this 16 (25.9%) who have knowledge about birth preparedness & complication readiness. Other associated factor was house hold monthly incomes. This study revealed that women who had house hold monthly incomes of 1000-3000 Ethiopian birr were three times [AOR=3.362(1.203, 9.393); $p<0.05$] more likely to have knowledge about birth preparedness & complication readiness than women had incomes of more than three thousand birr. Other associated factor was knowledge about key danger signs

of child birth. Who are knowledgeable for key danger signs of labour/ child birth four times [AOR = 3.685, 95% CI (1.157, 11.737); $p < 0.05$] found more knowledgeable compared to those who are not. This finding is similar with robe wereda study [11]. In addition, knowledge about key danger signs of postpartum period were five times more likely knowledgeable than those who do not have knowledge about it [AOR = 5.117(1.388, 18.863); $p < 0.05$]. This result has similarities with Goba wereda Oromia region Ethiopia study [7]. These similarities might be due to the same maternal health intervention in the respected areas.

Strength and limitation of this Study

Strength of the study

- Selection bias was minimised by using probability sampling method.
- Pre- test was done out of the study sites before actual data collection.
- Utilization of appropriate data collection procedures & statistical methods played a role in minimizing bias & confounding factors.
- The study was done on the first time specifically only the primigravida women

Limitation of the study

- The study relied on only structured questionnaire to assess the knowledge of birth preparedness and complication readiness and its associated factors among primigravida women.
- Since the data collectors were health professionals there might have professional bias.
- The study was conducted in the health facilities due to this it does not include those primigravida women who did not come to the health facilities.
- Lack of similar studies in our country & other countries to make comparative discussion on specify the primigravida women.

CHAPTER SEVEN

7. Conclusion and Recommendation

7.1. Conclusion

Only small numbers of primigravida women knowledgeable for danger signs of pregnancy, labour/child birth, postpartum & neonatal period. In addition, majority of the primigravida women had information on birth preparedness & complication readiness but only 64 (15.2%) of the respondents were knowledgeable about birth preparedness & complication readiness where as the remaining 358 (84.8%) of respondents did not. The marital status, house hold monthly incomes, knowledge of key danger signs during labour and post partum period were independent predictors of birth preparedness & complication readiness. Accordingly this, information given about danger signs & birth preparedness during ANC follow up is not comprehensive.

7.2. Recommendation

Based on the findings, the following areas were identified & specific recommendations were made in different levels.

Facility level

- ❖ To promote early detection, prevent birth complication to pregnant mothers particularly for primigravida women:-
 - Design & implement health promotion activities; awareness creation, Health education and distribution of IEC materials and follow up at individual, family and community level.
 - To improve knowledge of pregnant mother about danger signs and birth preparedness: strengthen the health education system; provide health education for pregnant mothers & community members.

- Prepare queue card (mother and baby card), that have information about danger signs and birth preparedness, counsel & give the card to remained.
- Update & empower the health care providers about maternal health
- Regular mentoring for health care provider those who working in maternity health.
- Health care providers, who are working in ANC & maternity counsel every pregnant mother depending on FANC guideline.

For policy & program level

- ✓ Addis Ababa City Administrative Health Bureau, each Sub City, Empower health care workers; by designing on job training, regular supportive supervision, coaching & monitoring.
- ✓ Encourage researchers to do more research at community & facility level then implement the finding & recommendation accordingly.

For future research

- ✓ Promote researchers to do more qualitative & quantitative research at community & facility level.
- ✓ This study open up an opportunity to further research for the researchers, police makers and different partners to assess the knowledge of birth preparedness and complication readiness and its associated factors among primigravida women, hence it could be used as a baseline for further studies.

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Annex

Annex I

**Addis Ababa University
College of Health Sciences
Department of Nursing and Midwifery**

Information sheet

Introduction of the questionnaire survey

Questionnaire on: the Assessment of Knowledge about Birth Preparedness and Complication

Readiness in Addis Ababa Governmental Health Facilities.

Code of the Health Institution _____

Good morning, Good afternoon, good evening [According to its convenience! My name is (Name of the data collector) _____]. We are conducting health research on Assessment of Knowledge on Birth preparedness and Complication Readiness among primigravida women. This is beneficial to identify areas of improvement in the pregnant mothers birth preparedness and highlight the need for corrective actions. By doing this we will provide sufficient information for policy makers & clinicians so that they could make informed decision. In order to attain this goal, you are kindly requested to provide your genuine response on the questions given below. I would like to confirm that you have the right to stop the interview at any time or skip any question that you do not wish to answer. Because taking part in this survey is voluntary and your responses will be held in strict confidence. Your privacy will also be protected and no one will know your answer. If you do not wish to participate, it will not affect the services you receive at the clinic now or in the future.

I also request you to answer candidly because your answers are like one important in the whole research and determine the outcome of this study. Thank you very much for participate? Yes - _____ No _____ if you have any question you can to ask: Ayelech K/mariam; 0911410324

Are you willing to participate?

If the answer is, YES, - Please continue, NO _____ Thanks her

Signature: _____ Date: _____

Thank you, have a nice day.

**አዲስ አበባ ዩኒቨርሲቲ የጤናሳይንስ ኮሌጅ
የነርቪንግ እና የሚድዊፈሪ ትምህርት ክፍል**

የጥናቱ መጠይቅ ቅጽ

በዚህ ሰነድ ላይ በመፈረም የሚካሄደው እርጉዞች ለመውለድ ዝግጅትና ሊያጋጥሙ የሚችሉ ችግሮች ተዘጋጅቶ ስለመጠበቅ ያላቸው ዕውቀት እንዲሁም ከዕውቀት ጋር የተያያዙ ጉዳዮችን ለመፈተሽ የሚደረገው ጥናት ላይ ለመሳተፍ ፍቃደኛ መሆኔን እገልጻለሁ። የጥናቱ አላማ በእርግዝና ወቅት፣ በመውለድ ጊዜ እና ከወሊድ በኋላ ለሚያጋጥሙ የጤና ችግሮች ለመፍታት ያለመዘናጋት ለመቀነስ አስፈላጊ የሆነ እቅድ ለማውጣት እና በተግባር ለማዋል የእናቶች እና አዲስ ለሚወለዱ ህፃናት ህይወት ለማዳን የሚጠቅም ማስረጃ ለማግኘት መሆኑ ተነግሮኛል። በዚህ ጥናት ላይም በተራዬ እንድሳተፍ ተጠይቂያለሁ።

በጥናቱ ለመሳተፍ በፈቃደኝነት ላይ የተመረከዘ መሆኔን እና የምሰጠው መረጃም ለጥናቱ አላማ ብቻ እንደሆነ ተነግሮኛል። በጥናቱ ላይ አለመሳተፍ ወይም መሳተፍ ጀምሮ ማቋረጥ ከፈለግሁ ማቆም እንደምችል እንዲሁም መመለስ የማልፈልጋቸውን ጥያቄዎች አለመመለስ እንደምችል ተነግሮኛል። ነገርግን በጥናቱ ላይ ባለመሳተፌ እኔም ሆነ ቤተሰቦቼ በምናገኘው አገልግሎት ላይ ምንም ዓይነት ተፅእኖ ወይም ጉዳት እንደሌለው ተረድቻለሁ። በተጨማሪም የምሰጣቸው መልሶች ለማንም እንደማይሰጡ እና በሚስጥር እንደሚጠበቁ እንዲሁም በዚህ ጥናት ሪፖርትም ውስጥ የሰጠሁት የእኔ ለመሆኑ ማንም ሊያውቀው እንደማይችል ተገንዝቧል። በዚህ ጥናት በመሳተፍ የምሰጠው መረጃ ግን የጥናቱን አላማ ለማሳካት እና የእናቶች ለውሊድ ዝግጅት እና ለሚመጣው ችግር ተዘጋጅቶ በመጠበቅ ላይ ለውጥ ለማምጣት ከፍተኛ ጠቀሜታ እንዳለው ተገንዝቧል።

ይህንን ጥናት በተመለከተ ጥያቄ ካልዎት

ለ አየለችኪ/ማሪያም በ0911410324ይደውሉ።።

የተሳታፊ/ርግ-----

ቀን-----

አመሰግናለሁ።።

Annex II

**Addis Ababa University
College of Health Sciences
Department of Nursing and Midwifery**

Consent sheet

Good morning, Good afternoon, good evening [According to its convenience].

My name is -----(Interviewer)

I temporarily represent Addis Ababa University, College of Health sciences, Department of Nursing and Midwifery. This study will be to conduct the assessment of knowledge on Birth Preparedness and Complication Readiness among primigravida women. If you decide to participate in the study, you will be asked some questions relating to your knowledge on birth preparedness & complication readiness. There may be benefits to the society by participating in this study. The results will be used to appeal to those in charge of the administration of health care at the local, A.A. health bureau levels to pay increased attention to the health promotion program on ANC attendants. By participating, you will contribute to improvement in the quality of service in the future. The interview will last approximately 20 minutes.

Any information you provide will be kept confidential. Your name will not appear on the questionnaire. Any information you provide will not be used against you. Your responses will not bring any harm to you and will not affect your service utilization.

You are free to choose whether or not you wish to participate.

Do you agree to participate in this study?

Yes No

Thank you for your cooperation.

Data Collector Name _____ Signature _____

Date Supervisor Name _____ Signature _____

Date _____

**አዲስ አበባ ዩኒቨርሲቲ የጤና ሳይንስ ኮሌጅ
የነርቪንግ እና የሚድዊፊሪ ትምህርት ክፍል**

የስምምነት ቅጽ

ጤና ይስጥልኝ እንደምን አደሩርሽ /እንደምንጥለ/ልሽ እኔ በአዲስ አበባ ዩኒቨርሲቲ የጤና ሳይንስ ኮሌጅ የነርቪንግ እና የሚድዊፊሪ ትምህርት ክፍል በጊዜያዊነት ወክዬ ነው ይህ የጥያቄ እና መልስ ይገዢ የመጣሁት። ለዚህም ለመመረቂያ ማሟያ ጥናት ጽህፍ በአዲስ አበባ በሚገኙ፣ እና በተመረጡ የጤና ድርጅቶች፣ በጤናጣቢያ እና ሆስፒታሎች የእርግዝና ክትትል ያሟያደርጉ እርጉዞች እናቶችን በዚህ ጥናት ለመሳተፍ ፍቃደኛ ከሆኑ እና ይህ ጥናት የሚካሄደው ለወሊድ ዝግጅት እና ሊያጋጥሙ የሚችሉ ችግሮች ላይ ተዘጋጅቶ ስለመጥበቅ ያላቸው እውቀት እና እንዲሁም ከእውቀት ጋር የተያያዙ ጉዳዮችን ለመፈተሽ ነው። የተለያዩ ጥያቄዎችን እንዲትመልሱልኝ /እንዲመልሱልኝ እጠይቃለሁ፤፤ ጥያቄና መልሱ 20 ደቂቃ ይወስዳል። የዚህ ጥናት ውጤት ለሚመለከተው ድርጅት፣ ለአዲስ አበባ ከተማ መሰተዳድር ጤናቢሮ እና ለሌሎች ለወሊድ ዝግጅት እና ለያጋጥሙ የሚችሉ ችግሮች ላይ ተዘጋጅቶ ስለመጥበቅ ያላቸው እውቀት ለማሻሻል ትኩረት እዲሰጥ ስለሚረዳ በዚህ ጥናት በመሳተፍ ለህበረሰቡ ጠቀሚታ ይኖረዋል፤፤ የሚሰጡን/ጡን መረጃ ማሰጥራዊነቱ የተጠበቀ ሲሆን፤ ስምሽ/ ዎት በማንኛውም ጽህፍ አይገለጽም፤ ይህ መረጃም በአንቺ/በእርሰዎ ሆነ በአገልሎቱ ላይ ምንም ችግር/ጉዳት አያስከትልም/ አያመጣም፤፤ በዚህ ጥናት ለመሳተፍም ሆነ ላለመሳተፍ ምርጫው የአንቺ/የእርሰዎ ነው፤፤

በጥናቱ ለመሳተፍ ፍቃደኛ ነሽ/ነዎት

አዎ የለም

በጥናቱ ስለተሳተፍ አመሰግናለሁ።።

ደህና ዋይ/ይዋሉ መልካም ቀን

መረጃ ሰብሳቢ

ስም-----ፊርማ-----ቀን

ተቆጣጣሪ ስም-----ፊርማ-----

Annex III

**Addis Ababa University
College of Health Sciences
Department of Nursing and Midwifery**

English & Amharic version questionnaires

English version questionnaires for exit interview

Identification Information

001. Code No. _____

002. Kifle ketema _____ Keble _____ House no. _____

Section 1 (one)

Part I

Socio demographic information, AA town April 2015

Q.N O.	Questions	Responses & code	Skip
101	What is your Age?	_____ years	
102	What is your Ethnicity?	Amahara.....1 Oromo.....2 Guragie.....3 Tigre.....4 Others [Specify].....97	
103	What is your Religion?	Orthodox.....1 Muslim.....2 Protestant.....3 Others [specify].....97	
104	What is your current Marital status?	married.....1 Single.....2 Divorced.....3 Widowed.....4 Others.....97	
105	What is your Educational level?	Illiterate1 Primary(1-8).....2 Secondary & above.....3	

106	What is your Occupation	House wife.....1 Gov't. employee.....2 Private employee.....3 Private business.....4 Others[specify].....97	
107	What is your income per month ETB/Month Birr	<1000.....1 1000-3000.....2 >3000.....3 None.....97	
108	What is your Husband's educational status?	Illiterate1 Primary(1-8).....2 Secondary & above.....3	
109	What is your husband occupation?	Gov't. employee.....1 Private employee.....2 Private business.....3 Others(specify).....97	
110	What is your husband income per month ETB/Month Birr?	<1000.....1 1000-3000.....2 >3000.....3	
111	What is your family size?	1-2.....1 3-4.....2 >4.....3	
112	What is your Household[family] income per month ETB/Month Birr	<1000.....1 1000-3000.....2 >3000.....3	

Section 1 (one) Part II

Obstetrics characteristics of the respondents, AA town April 2015

Q.NO	Questions	Response & code	Skip
201	When you first start ANC in this pregnancy? (in month)	1-4.....1 4-7.....2 >7.....3	
202	In this pregnancy, How many times do you have ANC follow up?	1.....1 2-4.....2 Above 4.....3	
203	Gestational age(in month)	1-4.....1 5-7.....2 >7.....3	

Section 2 (Two)

Knowledge on danger signs and birth preparedness

Q.N O.	Questions	Responses & codes	Skip
301	Do you know any /some serious health problem/s that can occur during pregnancy that could endanger the life of pregnant women?	Yes.....1 No.....2 Don't know.....97	→ 302 → 302
302	Can you mention them?	1.vaginal bleeding.....1 2.severeheadache.....2 3 Blurred vision.....3 4. Severe abdominal pain.....4 5.Swollenhandsandface.....5 6.fever.....6 7.foetus movement reduced or absence and excessive7	

		8.tiredness/breathlessness.....8 9. Others (specify).....97	
303	Do you know any/some serious health problem/s that can occur during labour and child birth that could endanger the life of pregnant women?	Yes.....1 No.....2 → 304 Don't know.....97 → 304	
304	Can you mention them?	1. Sever vaginal bleeding.....1 2. Severe headache.....2 3. Convulsion.....3 4. High fever.....4 5. Loss of consciousness.....5 6. Labour lasting >12 hours.....6 7. Placenta not delivered 30 minutes after the neonate.....7 8. Others(specify).....97	
305	Do you know any/some serious health problem/s that can occur during the first 42 days after birth that could endanger the life of the woman?	Yes.....1 NO.....2 → 306 Don't know.....97 → 306	

306	Can you mention them?	1. Sever vaginal bleeding.....1 2. Sever headache.....2 3. Blurred vision.....3 4. Convulsion.....4 5. Swollen hands/face.....5 6. High fever.....6 7. Loss of consciousness.....7 8. Difficulty breathing.....8 9. Sever weakness.....9 10. Malodorous vaginal discharge...10 Others(specify).....97	
307	Do you know any /some/ serious health problems/that the New born neonate?	Yes.....1 NO.....2 → 308 Don't know.....97 → 308	
308	Can you mention them?	A very small baby1 Lethargy/unconsciousness.....2 Convulsions/spasms/rigidity.....3 Difficult/fast breathing.....4 Others (specify).....5	
309	Have you ever heard the term –Birth preparedness”?	Yes.....1 NO.....2 → 310 Don't know.....97 → 310	
310	From whom did you get the information?	Health professional.....1 CHW.....2 HEW.....3 Media.....4 Family.....5 Others (specify).....97	
311	In your opinion, what are some things a woman can do to	1. Desired place of birth.....1 2. Preferred birth attendant.....2 3. Location of the closest	

	prepare for birth?	appropriate care facility.....3 4.Funds for birth-related and emergency expenses.....4 5. A birth companion.....5 6. Support in looking after the home and children while the woman is away.....6 7. Transport to a health facility for the birth.....7 8. Transport in the case of an obstetric emergency.....8 9.Aware on the signs of obstetrics danger sign.....9 10.Identification of compatible blood donors in case of emergency.....10 11.Others(specify).....11	
--	--------------------	--	--

312	<p>Could you tell me the provided pregnancy related topics? probe the answer</p>	<p>Education about:</p> <ol style="list-style-type: none"> 1. Danger sign..... 1.yes 2.No 2. PMTCT..... 1.Yes 2.No 3. Early and exclusive breast feeding.....1.Yes 2.No 4.Smoking cessation, avoidance of alcohol, drugs and harm full practice...1Yes 2.No 5. Hygiene1.Yes 2.No 6. Sleep under ITN...1.Yes 2.No 7. Family planning...1. Yes 2.No 8. Birth& complication readiness.....1.Yes 2. No 9. Next appointment time.....1.Yes 2No 10.parenting skills.....1.Yes 2.No 	
-----	--	--	--

አዲስ አበባ ዩኒቨርሲቲ የጤና ሳይንስ ኮሌጅ
የነርቪንግ እና የሚድዊፈሪ ትምህርት ክፍል

ቃለ መጠይቅ መለያ መረጃ

001. የኮድ ቁጥር:.....

002. ክ/ከተማ:ቀበሌ:.....

የቤ.ቁ:.....

:ክፍል1: ስነምግባር እና ማህበረሰብ ጉዳዮች

101	ዕድሜሽ ስንትነው?	-----ዓመት	ይለፉ
102	ብሔር/ዘር	አማራ.....1 አሮሞ.....2 ጉራጌ.....3 ትግራይ.....4 ሌሎች(ይገለጹ).....97	
103	ሐይማኖት /እምነት	አርቶዶክስ.....1 ሙስሊም.....2 ፕሮቴስታንት.....3 ሌሎች(ይገለጹ).....97	
104	አሁን ያለውት /ያለሽ የጋብቻ ሆኔታ	ያገባች.....1 ያላገባች2 የተፋታች3 ባለቤቷየሞተ.....4 ሌሎች(ይገለጹ).....5	
105	የትምህርት ደረጃ	ያልተማረች.....1 የመጀመሪያደረጃ(1-8)2 ሁለተኛ ደረጃ እና ከዚያ በላይ.....3	
106	ሥራ	የቤትአመቤት.....1	

		የመንግስት ሠራተኛ.....2 የግል ሠራተኛ.....3 የግልንግድ.....4 ሌሎች (ይገለጹ).....97	
107	የወር የአንቺ ገቢ	ከ1000.00 በታች.....1 ከ1000.00-3000.00.....2 ከ3000.00 በላይ.....3 የለኝም.....97	
108	የባል የትምህርት ሁኔታ	ያልተማረ/ሩ.....1 አንደኛ ደረጃ(1-8).....2 ሁለተኛ ደረጃ እና ከዚያ በላይ.....3	
109	የባለቤትነት ስራ	የመንግስት ሰራተኛ.....1 የግል ተቀጣሪ.....2 የግልንግድ.....3 ሌሎች(ይገለጹ).....97	
110	የወር የባለቤትነት ገቢ	ከ1000.00 በታች.....1 ከ1000.00-3000.00.....2 ከ3000.00 በላይ.....3	
111	የቤተሰብ ብዛት	1-2.....1 2-4.....2 >4.....3	
112	የወር የቤተሰብ ገቢ	ከ1000.00 በታች.....1 ከ1000.00-3000.00.....2 ከ3000.00 በላይ.....3	

ክፍል2: የዕርግዝና እና የወሊድ ሁኔታ

ተ.ቁ	ጥያቄዎች	መልስ እና /ኮድ	ይለፉ
201	በስነተኛ ወርሽ ክትትል ጀመርሽ/ሩ?	1-4.....1 4-7.....2 ከ7 ወር በላይ.3	
202	በአሁኑ እርግዝናሽ ምን ያህል የእርግዝና ክትትል አለሽ/ዎት?	1.....1 2-4.....2 ከ4 በላይ.....3	
203	የእርግዝናሽ /ዎት ወቅት ምን ያህል ወር ነው?	1-4.....1 5-7.....2 ከ7 ወር በላይ.3	

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ተ.ቁ	ጥያቄ	መልስ እና /ኮድ	ይለፉ
301	በእርግዝና ጊዜ ሊከሰቱ የሚችሉ፣ እርግዝናውን እና የአንቺን ጤንነት ሊጎዱና ለአደጋ ሊያጋልጡ የሚችሉ የጤና ችግሮችን ታውቂያለሽ/ሉ?	አዎ.....1 የለም2 አላውቅም.....97	መልሱ የለም/ አላውቅም ከሆነ ጥያቄ 302 ይለፉ

302	ልትገልጭልኝ ትቺያለሽ/?	1.ከብልት ደም መፍሰስ....1 2. ከፍተኛ የሆነ እራስ ምታት.....2 3.የእይታ ብዥ ማለት.....3 4.ከፍተኛ የሆድ ህመም4 5.የእግር ና የእጅ ማበጥ...5 6. ከፍተኛ ትኩሳት.....6 7.የጽንሱ እንቅስቃሴ መቀነስ /አለመኖር /በጣም መፍጠን.....7 8 .ከፍተኛ ድካም ትንፋሽ ማጣት.....9 9.ሌሎችካሉ(ይግለጹ).....97	
303	በምጥ እና በወሊድ ጊዜ የአንቺን ጤንነት ሊጎዱ እና ለአደጋ ሊያጋልጡ የሚችሉ የጤና ችግሮችን ታውቂያለሽ/ሉ?	አዎ.....1 የለም2 አላውቅም97	መልሱ የለም/ አላውቅም ከሆነ ጥያቄ 304 ይለፉ
304	ልትገልጫልኝ ትችያለሽ/ሉ?	1.ከፍተኛ የሆነ ከብልት ደም መፍሰስ.....1 2.ከፍተኛ የሆነ እራስ ምታት..2 3.ማንቀጥቀጥ3 4.ከፍተኛ ትኩሳት.....4 5.አቅል/እራስን መሳት/.....5 6.የምጥ መራዘም>12 ሰዓት....6 7.ልጅከተወለደ 30 ደቂቃ በኋላ	

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305	<p>ከወሊድ በኋላ የመጀመሪያ 42 ቀናቶች የአንቺን ጤንነት ሊጎዱና ለአደጋ ሊያጋልጡ የሚችሉ የጤና ችግሮችን ታውቂያለሽ/ሉ?</p>	<p>አዎ.....1</p> <p>የለም.....2</p> <p>አላውቅም.....97</p>	<p>መልሱ የለም/ አላውቅም ከሆነ ጥያቄ 306 ይለፉ</p>
306	<p>ልትገልጫልኝ ትችያለሽ/ሉ?</p>	<p>1.ከፍተኛ የሆነ ከብልት ደም መፍሰስ.....1</p> <p>2. ከፍተኛ የሆነ እራስ ምታት.....2</p> <p>3. የእይታ ብኝ ማለት....3</p> <p>4.ማንቀጥቀጥ.....4</p> <p>5.የእግር ና የእጅ ማበጥ...5</p> <p>6.ከፍተኛ ትኩሳት.....6</p> <p>7.አቅል/እራስን መሳት/.....7</p> <p>8.የመተንፈስ ችግር.....8</p> <p>9.ከፍተኛ ድካም.....9</p> <p>10.የተበጣጠሰ እና የተቆራረጠ የብልትፈሳሽ.....10</p> <p>11.ሌላ ካለ (ይግለጹ).....97</p>	
307	<p>የሚወለደውን ጨቅላ ህፃን ለአደጋ ሊያጋልጡ የሚችሉ</p>	<p>አዎ.....1</p> <p>የለም.....2</p> <p>አላውቅም.....97</p>	<p>መልሱ የለም/ አላውቅም ከሆነ</p>

	ችግሮች አሉ ብለሽ ታስቢያለሽ/ሉ?		ጥያቄ 308 ይለፉ
308	ልትገልጫልኝት ችያለሽ/ሉ?	1. በጣም ትንሽ ህፃን.....1 2. የደክመ ወይም ዕራሱን የሳተ.....2 3. የሚንቀጠቀጥ.....3 4. በጣም የሚተነፍስ ወይም ለመተንፈስ የሚቸገር.....4 5. ሌሎች ካሉ (ይገለፅ).....97	
309	የወሊድ ዝግጅት የሚል ሀረግ ስምተሽ/ው/ታው ቂያለሽ/ሉ?	አዎ.....1 የለም.....2 አላውቅም.....97	መልሱ የለም/ አላውቅም ከሆነ ጥያቄ 310 ይለፉ
310	መረጃውን ከማን ለማሽ/ሙ?	1. ከጤና ባለሞያ.....1 2. ከህብረተሰብ ጤና ሰራተኛ.....2 3. ከጤና ኤክስፔሽን ባለሞያ..3 4. ከቤተሰብ.....4 5. ሌሎች (ይገለፅ).....97	
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312	<p>የአሁኑን እርግዝና በተምልከተ የተማርሻቸውን ትምህርት ልትነግሪኝ/ሊነግሩኝ ትችያለሽ/ላሉ? ያንቡቡላቸው</p>	<p>የጤና ትምህርት ስለ:-</p> <p>1.አደገኛምልክቶች...1.አዎ 2.የለም</p> <p>2.ከእናት ወደ ልጅ የሚተላለፈውን የኤችአይቪ.ሁኔታ...1.አዎ 2.የለም</p> <p>3.እንደወለዱ የእናት ጡት ማጥባት.....1.አዎ 2.የለም</p> <p>4. ስለ ሲጋራ ማጨስ ጉዳትናጎጂ የሆኑ አልኮል መድሃኒት እና ሌሎችልምዶችን ስለማስወገድ.....1.አዎ 2.የለም</p> <p>5.ስለ ግልንጽህና..1.አዎ 2.የለም</p> <p>6.በወባ መከላከያ አጎበር መጠቀም.....1.አዎ 2.የለም</p> <p>7.ስለ እርግዝና መከላከያ</p>	

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ለነበርን ቆይታ ሁሉ እናመሰግናለን።