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DEPARTMENT OF NURSING AND MIDWIFERY

ASSESSMENT OF TIMING OF FIRST ANTENATAL CARE (ANC) INITIATION AND ASSOCIATED FACTORS AMONG PREGNANT WOMEN IN SELECTED PUBLIC HEALTH CENTERS IN ADDIS ABABA, ETHIOPIA, 2014

BY: - ZEMZEM MOHAMMED (BSN, MSC candidate)

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ADVISOR: - EMEBET BERHANE (RN, BSC, MSC

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Approve by Board of Examiners

This thesis by **Zamzam Mohammed** is accepted in its present form by the board of examiners as satisfying thesis requirement for degree of masters of Science in **Maternity and Reproductive Health Nursing**.

Internal Examiner

_____	_____	_____	_____
Full name	Rank	Signature	Date

Advisor

_____	_____	_____	_____
Full name	Rank	Signature	Date

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ACRONYMS

AIDS = Acquired Immunodeficiency Syndrome

ANC = Antenatal Care

ARV = Anti-retroviral

C/S = Caesarian section

CI = Confidence Interval

DHS = Demographic and Health Survey

ETB= Ethiopian Birr

EDHS = Ethiopian Demographic and Health Survey

HAART = Highly Active Anti Retroviral Treatment

HBM = Health belief model

HC = Health center

HIV = Human Immunodeficiency Virus

IRB = Institute Review Board

MDG = Millennium Development Goal

MMR = Maternal Mortality Ratio

NGO = Non-Governmental Organization

OAU = Organization for African Union

OR = Odds ratio

SPSS = Statistical Package for Social Sciences

Sq. Km = Square Kilometer

TBA = Traditional Birth Attendants

WHO = World Health Organization

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ABSTRACT

Background: The purpose of ANC is to improve pregnancy outcome for both the mother and fetus. Antenatal care is more beneficial in preventing adverse pregnancy outcomes when it is initiated early in the pregnancy and continued until delivery. Despite the widespread availability of free antenatal care services, most women in our country attend their first antenatal clinic late in pregnancy and fail to return for follow-up care, which potentially leads to prenatal and maternal complications.

Objective: The objective of this study was to assess timing of first ANC initiation and factors that influence timing of first ANC initiation among pregnant women at selected public Health Centers in Addis Ababa.

Methods: The research was done using cross-sectional study design on randomly selected 383 samples of pregnant women attending antenatal care at selected public health centers found in Addis Ababa city administration. The respondents were interviewed by trained and experienced data collectors, after informed consent was obtained. The collected data was then entered using Epi info version 3.5.4 and the data cleared and analyzed using SPSS version 21.

Result: Two hundred seventy five (71.8%) of participants started antenatal care early within 16 weeks of gestation. Three hundred sixty two (94.5%) and 365(95.3%) of respondents perceived and rated that ANC is highly important for the health of the mother and fetus respectively. Three hundred sixty (94%) of the respondents perceived that the correct time of ANC visit was before 16 weeks of gestation. Two hundred forty (62.7%) of the respondents have ever attended ANC services while 143 (37.3%) not. Out of 211 respondents who informed the time that they had started ANC service for the last pregnancy preceding this one, 66 (31.3%) had started at 12^{th} week of gestation while 53(25.1%) and 38(18%) had started at 16^{th} and 20^{th} weeks of gestation respectively.

Conclusion: About quarter (28.2%) of women were entered late to first antenatal visit.

Recommendation: There is a need for improvement in the timely initiation of antenatal care in health centers of Addis Ababa. Further study is also needed to look at health care system practices to conclude what changes are needed that would make possible that more pregnant women to receive early and continuous antenatal care.

CHAPTER ONE: INTRODUCTION

1.1. Back ground information

Pregnancy is a very important event from both social and medical points of view. Therefore, pregnant women should receive special care and attention from the family, community and from the health care system [1]. Many health problems (such as diabetes mellitus, renal disease, cardiac disease, chronic hypertension, tuberculosis, past history of HIV – related illnesses and Highly Active Anti Retroviral Treatment (HAART), varicose veins, deep venous thrombosis, other specific conditions depending on prevalence in service area (for example, hepatitis, malaria), other diseases, past or chronic allergy) [1, 2] in pregnant women can be prevented, detected and treated by trained health professionals during antenatal care visits. Therefore, World Health Organization (WHO) recommends a minimum of four antenatal visits, comprising interventions such as tetanus toxoid vaccination, screening and treatment for infections, and identification of warning signs during pregnancy [2].

Antenatal care refers to pregnancy-related services provided by skilled health care professionals starting from conception up to the onset of labour encompassing monitoring of the health status of the woman and the fetus, provision of medical and psychosocial interventions and support, and health promotion [3].

The main objectives of antenatal care are: prevention and treatment of any complications; emergency preparedness; birth planning; satisfying any unmet nutritional, social, emotional and physical needs of pregnant woman. It also includes provision of patient education, including successful care and nutrition of the newborn; identification of high risk pregnancy; encouragement of (male) partner involvement in antenatal care [1]. The care should be appropriate, cost-effective and based on individual needs of the mother [1].

The general health status of pregnant women depends largely on the quality of the antenatal services available to them, as pregnancy tends to aggravate most potential diseases that can occur in women. The provision of good antenatal services ensures early detection and prompt management of any complication or disease that may adversely affect pregnancy outcome [4].

According to De Kock and Van der Walt, the comprehensive aim of antenatal care is to prepare the pregnant woman and her family for pregnancy, labour and puerperium, including lactation and subsequent care of the newborn baby [5]. Antenatal care is more beneficial in preventing adverse pregnancy outcomes when provided early in the pregnancy and continued through delivery. Early detection of problems in pregnancy is used for more timely referrals for women in high-risk categories or with complications; this is particularly true in Ethiopia, where three-quarters of the population live in rural areas and where physical barriers such as distance (inaccessibility), transportation service, crowded traffic and unsuitable health institution buildings pose a challenge to providing health care. Under normal circumstances, the World Health Organization (WHO) recommends that a woman without complications should have at least four antenatal care visits, the first of which should take place during the first trimester [6], around or preferably before 16 weeks of gestational age [1].

The aims and objectives of the first visit are primarily to establish a rapport with the client and collect information to evaluate the state of health of the mother, and her preparedness for motherhood and chart the likely course of the pregnancy [7]. While the second visit should be scheduled at 24-28 Weeks and it is expected to take about 20 minutes [1]. The third visit should take place around 30 to 32 weeks and is expected to take 20 minutes. The fourth should be the final visit of the basic component and should be taken place between weeks 36 and 38. Objectives of the second, third and fourth visits are to note any changes since first, second and third visits respectively and plan for appropriate care whenever any abnormality is detected. Specifically the fourth visit is extremely important that women with fetuses in breech presentation should be discovered and external cephalic version be considered. All information on what to do and where to go (which health facility) when labor starts or in case of other symptoms should be reconfirmed in writing and shared with the patient, family members and/or friends of the patient [1].

In developed countries such as the United Kingdom and the United States, ANC is recommended within the first 12 weeks of pregnancy [8, 9]. Women of developed countries are advised to attend ANC early and even earlier than previously recommended. For example, the United State Public Health Service Expert Panel on Prenatal Care recommends a first visit in

the first eight weeks of pregnancy and, ideally, before conception in order to identify and treat health conditions that could affect the fetus and mother [10]. Especially preconception care is recommended in face of HIV positive mothers about options for preventing unplanned pregnancy, the use of FP methods and its relation with HIV/AIDS and ARV drugs. Moreover, nutritional advice with information on adequate high calorie intake to support nutritional needs, provision of additional iron and folate at least three months prior to pregnancy and encouraging the consumption of foods rich in iron (e.g. green leafy vegetables, meat and liver) and prevention of diseases such as malaria will be provided as a component of care for woman prior to conception [1].

Antenatal care is a key entry point for pregnant women to receive a broad range of health promotion and preventive health services. ANC provides an opportunity to advice women and their families on how to prepare for birth and potential complications and promote the benefit of skilled attendance at birth and to encourage women to seek postpartum care for themselves and their newborn. It is also ideal time to counsel women about the benefits of family planning and provide them with options of contraceptives. In addition, ANC is an essential link in the house to hospital care continuum and helps assure the link to higher levels of care when needed [1].

Although scientific debate concerning the design of ANC continues, research suggests that in low-income countries, particularly sub-Saharan Africa, pregnant women often do not receive the recommended ANC [11, 12]. Across sub-Saharan Africa there is wide variation in ANC attendance: although 71% of pregnant women attend formal ANC at least once, only 44% attend ANC four or more times [12]. To ensure that women achieve four ANC visits and that potential complications are identified in early pregnancy and managed effectively, the WHO recommends that women initiate ANC during the first trimester of pregnancy [13]. However, comprehensive analysis of DHS data from the 1990s suggested that less than 30% of pregnant women achieved this goal [12]. More recent Demographic and Health Survey (DHS) data illustrate that the variation in timing of ANC initiation across sub-Saharan African remains notable: for example, 11% of women started ANC in the first trimester in Ethiopia (2011) [6]; 16% in Nigeria (2008[14]); 47% in Congo-Brazzaville (2005 [15]) and 55% in Ghana (2008 [16]).

1.2. Statements of the problem

Antenatal care improves a wide range of health outcomes for women and children and provides an opportunity to provide interventions for improving maternal nutrition, to encourage skilled attendance at birth and use of facilities for emergency obstetric care [17, 18]. Delayed entry into antenatal care may result in missed opportunities to diagnose pregnancy induced hypertension, gestational diabetes, or sexually transmitted infections.

Maternal health care is important for better maternal, Perinatal and infant health outcomes. High maternal and neonatal mortality rates are associated with inadequate and poor-quality maternal health care, including antenatal care, skilled attendance at birth and postnatal care. Hence, achieving the MDG number 5 on maternal health requires providing high-quality pregnancy and delivery care, improving sexual and reproductive health care and universal access to all its aspects [17, 19, 20].

Maternal death has declined substantially worldwide except in Sub-Saharan Africa [21]. Of the 21 countries with the highest maternal mortality, fifteen are in sub-Saharan Africa, including Ethiopia [21]. According to 2011 EDHS report, a maternal mortality ratio (MMR) was 676 deaths per 100,000 live births during the seven-year period preceding the survey. In other words, for every 1,000 live births in Ethiopia during the seven years preceding the 2011 EDHS, about seven women (6.76) died during pregnancy, during childbirth, or within two months of childbirth. The lifetime risk of maternal death (0.036) indicates that about 4 percent of women died during pregnancy, during childbirth, or within two months of childbirth. The estimated maternal mortality ratio is almost the same in the 2011 EDHS (676) as it was in the 2005 EDHS (673) [6], though it still remains to be among the highest. The 2011 EDHS report revealed that, percentage of pregnant women who attended ANC visit at least once are 42.6% while 19.1% of women attended at least four ANC visits [6].

From a qualitative research in three countries (Ghana, Kenya and Malawi), women's timing of ANC initiation was influenced by reproductive concerns and pregnancy uncertainties, particularly during the first trimester, and how ANC services responded to this uncertainty; age, parity and the associated implications for pregnancy disclosure; interactions with healthcare workers, particularly messages about timing of ANC; and the cost of ANC,

including charges levied for ANC procedures – in spite of policies of free ANC – combined with ideas about the compulsory nature of follow-up appointments [22]. Nonetheless, across the research sites, survey data indicate two notably different patterns of ANC attendance: on the one hand, over half of Ghanaian women attend ANC in the first trimester of pregnancy and less than 10% initiate ANC in the third trimester; whereas, in Kenya and Malawi, 12% and 15% of women, respectively, initiated ANC in the first trimester and around 40% in the third trimester [22]

Results from a systematic review and meta-analysis indicate increased odds of delayed antenatal care use among women with unintended pregnancies (OR 1.42) as compared to women with intended pregnancies [23]. There have been many studies on factors relating to late entry to ANC in the world. The related factors include place of residence, age, education, employment status, parity, intention to get pregnant, use of contraceptive method, economic status, health insurance and travel time [24].

Even though there is an increase in number and professional mix of human resources and accessibility and number of health care facilities providing perinatal care free of cost and without discrimination to any status of the woman, maternal mortality rate which is decreasing worldwide, is still among the highest in our country. As there is no data regarding ANC initiation time in the study area; this study will fill the gap by identifying the existing time of ANC initiation and the factor for late entry into first ANC.

1.3. Significance of the study

Many researches revealed that early commencement of antenatal care by pregnant women as well as regular visits has the potential to affect maternal and fetal outcome positively [25]. Due to its potential impact on the provision of ANC in line with WHO recommendations, particular emphasis will be placed on investigating timing of first ANC initiation and associated factors.

Studies done on timing of first ANC visit in different areas reported the time of first ANC visit differently. Therefore, this study attempts to assess the timing of pregnant women's first antenatal care visit and identifies the maternal and socio-demographic factors influencing early and late attendance among pregnant women in the study area. The result is expected that it will enable the targeting of ANC resources to improve maternal and infant health specially to increase maternal early entry into ANC.

The finding of this research can also serve other researchers, educators, policy makers, governmental and nongovernmental organizations as a step point for initiation of activities and strengthening the utilization of available resources in order to decrease the maternal mortality ratio of our country which is much higher than the target. For the researcher, this research will have great a deal of importance in enabling her to contribute to her nation in showing the magnitude of late initiation of first ANC utilization by pregnant women in study area and its associated factors as well as in providing skills and experience to take part in process of such an important research activities. Moreover, the successful completion of this thesis will help me as a partial fulfillment for master's degree in Maternal and Reproductive Health Nursing. Lastly it might provide some information that will help the planning and implementation of different activities that promote early initiation of first ANC and quality of services that can directly and/or indirectly contribute to the wellbeing of mothers and fetus, community wellbeing.

In general knowledge of the information, particularly reasons behind coming late for the first antenatal care visit by some pregnant women, will enable development of recommendations to the concerned authorities (policy makers, health professionals and pregnant women) aimed at encouraging pregnant women to make their first antenatal care visit at the times recommended by WHO as well as Ethiopian Federal ministry of health.

CHAPTER TWO: LITERATURE REVIEW

2.1. Timing of First Antenatal Care

A key objective of maternal health care programs has been to ensure that women present for ANC early in pregnancy in order to allow enough time for essential diagnosis and treatment regime ns such as treatment of STIs and management of anemia [7].

A research conducted among Pacific Islands Families (New Zeland), almost all (99.1%) mothers attended antenatal care at least once. Over a quarter (26.6%) initiated their antenatal care late (their first antenatal visit was 15 weeks or later into their pregnancy) [26].

Data from New South Wales presented that 41% of women entered ANC after 12 weeks, 16% after 17 weeks and 10% after 20 weeks. The mean pregnancy duration at entry to ANC was 12.8 weeks and the median duration was 12 weeks [24].

The above explained qualitative research in three countries (Ghana, Kenya and Malawi) tended to characterize respondents from different categories as women in Ghana generally starting ANC around the third or fourth month of pregnancy, whereas women in Kenya and Malawi were often reported to make their first visit at around the sixth or seventh month [22].

The findings of the Uganda Demographic and Health survey 2011 showed that though over 90% of pregnant women attend antenatal care at least once, only 48% make four or more antenatal care visits during their entire pregnancy, only 21% of women made their first antenatal care visit before the fourth month of pregnancy [27].

The majority of pregnant women from self report survey in south-eastern Tanzania explained that they initiated antenatal care attendance with an average of 5.1 gestational months. Among the 405 pregnant women participating, only 29% initiated ANC attendance within the first four months of pregnancy as recommended by WHO [28].

In Ethiopia, According to EDHS 2011, Nineteen percent of women with a live birth in the five years before the survey made four or more ANC visits during the length of their pregnancy, a marked improvement from 12 percent reported in the 2005 EDHS. Urban women are more

likely than rural women to have made four or more visits (46 percent versus 14 percent). Eleven percent of women made their first ANC visit before the fourth month of pregnancy, an almost two-fold increase from 6 percent in the 2005 EDHS. The median duration of pregnancy at the first visit is 5.2 months, while urban women made the first ANC visit earlier (4.4 months) than rural women (5.5 months) [6].

A cross sectional study in Addis Ababa revealed that the proportion of respondents who made their first ANC within the recommended time (before or at 12 weeks of gestation) were 40.2% while those who initiate ANC late (after 12 weeks of gestation) were 59.8% [29].

2.2. Factors that contribute to patterns of maternal health utilization

Women and newborns need timely access to skilled care during pregnancy, childbirth, and the postpartum/newborn period. Too often, however, their access to care is impeded by delays-delays in deciding to seek care, delays in reaching care, and delays in receiving care. These delays have many causes, including logistical and financial concerns, unsupportive policies, and gaps in services, as well as inadequate community and family awareness and knowledge about maternal and newborn health issues [1].

Delays in deciding to seek care may be caused by failure to recognize signs of complications, failure to perceive the severity of illness, ignorance about existing of obstetric services, cost of transport and health care, previous negative experiences with the healthcare system, and transportation difficulties [1].

Several authors state financial problems as the major constraint to antenatal clinic attendance [30, 31].

While having a medical aid or a health care insurance policy is key to attending antenatal clinics in the USA and other Western countries, this is not the case in Lesotho, because women are not required to have any insurance in order to receive antenatal care services. In fact, antenatal services as well as contraceptive services are among the cheapest health services offered in Lesotho. For instance, in Lesotho M10.00 (or R10.00 in South African currency) is required for the first antenatal visit; subsequent visits are free of charge [32]

Utilization of health services is a complex behavioral phenomenon. Empirical studies of preventive and curative services have often found that use of health services is related to the availability, quality and cost of services, as well as social structure, health beliefs and personal characteristics of the users [29].

Several factors affecting the utilization of antenatal care in developing countries have been identified [33]. These include: maternal education, husband's education, marital status, availability, cost, household income, women's employment, media exposure and having a history of obstetric complications [33, 34].

According to a research done in Lesotho on variables influencing delay in antenatal clinic attendance among teenagers, from a total of 21 interviewed pregnant adolescents, the majority (71.43%) started visiting the antenatal clinic during the second trimester, while 28.57% started antenatal care during the third trimester. The research also revealed that there is association between time of ANC attendance and pregnant adolescent's educational level and that of parent, breadwinners' employment status, denial of the pregnancy by the boyfriend and support during pregnancy. [32]

A research done in south-eastern Tanzania on 'timing of antenatal care for adolescent and adult pregnant women showed time of antenatal attendance was associated with number of pregnancy (first pregnancy strongly associated with an earlier ANC attendance) and previous miscarriage or stillbirth [28].

Conceptual Framework

A health-protecting behavior is defined as any behavior performed by people, regardless of their actual or perceived health condition, for the purpose of promoting or maintaining their health, whether or not the behavior produces the desired outcome. One framework, the **health belief model (HBM)**, was devised to foster understanding of what made some healthy people choose actions to prevent illness while others refused to engage in these protective recommendations.

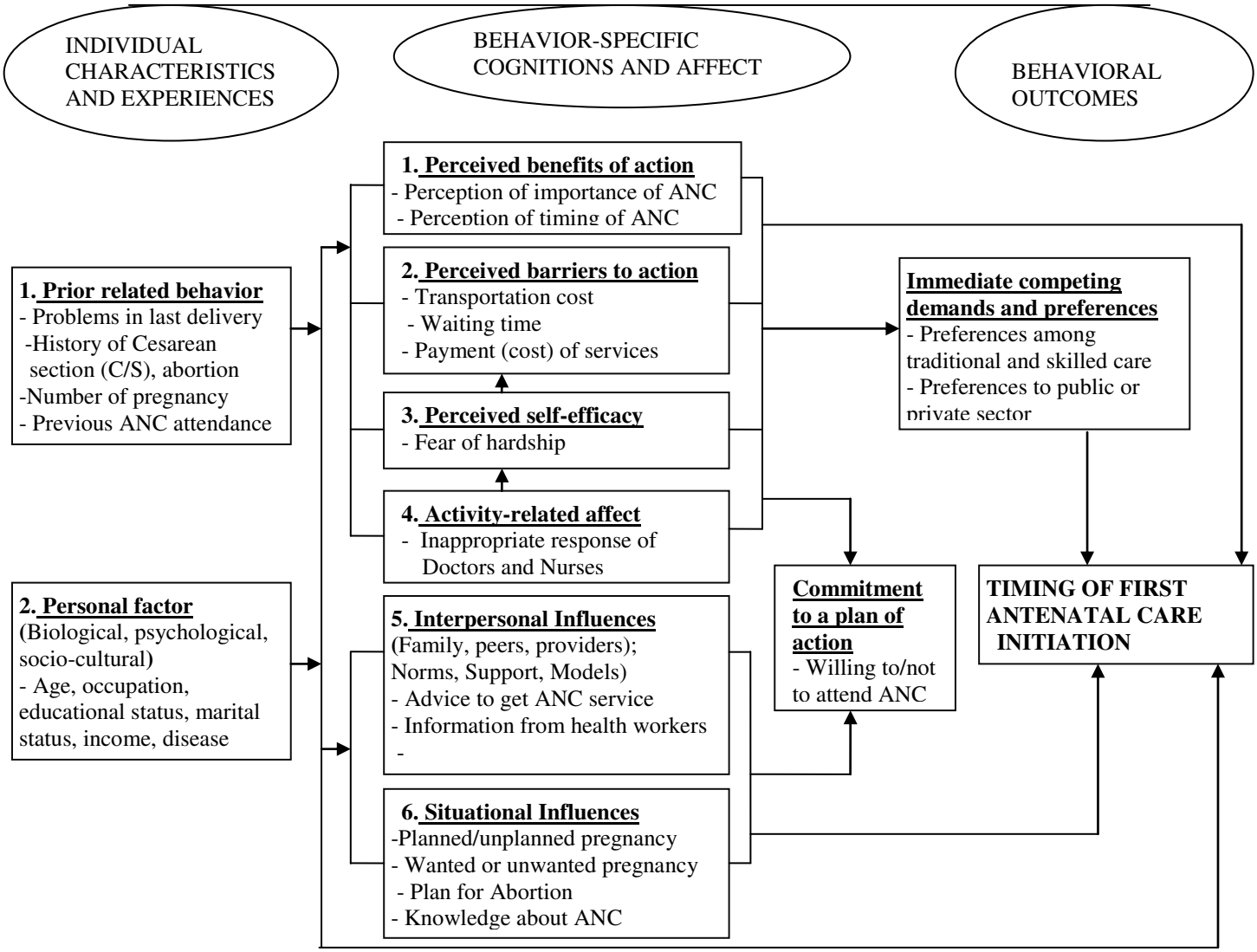

Figure 1: Conceptual framework for timing of first ANC (Adopted from Revised health promotion model or Health belief model (HBM) of Nola J. Pender 1996)

CHAPTER THREE: OBJECTIVES

3.1. General Objective

The general objective of this study is to assess timing of first ANC initiation and factors that influence timing of first ANC initiation among pregnant women at selected public Health Centers in Addis Ababa.

3.2. Specific Objectives

1. To assess the timing of fist ANC initiation
2. To assess the knowledge of pregnant women on importance of first ANC initiation
3. To assess factors associated with late initiation of first ANC

CHAPTER FOUR: METHODS AND MATERIALS

4.1. Study Area

This study was conducted in seven selected public health centers in city of Addis Ababa. Addis Ababa lies on 9°1′48″N latitude and 38°44′24″E longitude. The city is located at the heart of the country, at an altitude ranging from 2,100 meters at Akaki in the south to 3,000 (9,800 ft) meters at Entoto Hill in the North. This makes Addis Ababa the third highest city in the world, after La Paz and Quito in Latin America. The city has sub-tropical highland climate. Its time zone is categorized in East Africa Time (UTC+3). The city occupies a total area of 540 Sq. Km [35].

Addis Ababa is the capital city of African Union and its predecessor, the OAU (Organization for African Union) and federal government Ethiopia with a total projected population of 3,048,631for the year 2012. It is further divided into 10 subcities and 116 woredas, the smallest administrative unit in the city. In Addis Ababa, there are 42 hospitals (36 private and 6 governmental) and 53 Health Centers [35]. The Addis Ababa's childbearing age group is 35% of the total female population [35].

4.2. Study Period

The duration of the research was from December, 2013 to June, 2014 and the data collection period was from March 11th to April10th, 2014.

4.3. Study Design

Institution based cross-sectional study design was used.

4.4. Source and Study Population

Source population: All pregnant women in Addis Ababa City Administration and using public health center for ANC.

Study population (**participants of the study):** Pregnant women attending ANC at selected health centers.

4.5. Inclusion and Exclusion Criteria

4.5.1. Inclusion Criteria

All pregnant women attending ANC service, resident of the study area (at least for 6 months) and willing to participate in the study were included.

4.5.2. Exclusion Criteria

Women who were severely ill, unwilling to participate and on labour pain and those stayed less than 6 months in the study area were excluded from the study.

4.6. Sample Size Determination

The sample size was calculated using single population proportion based on the following assumptions. From a cross sectional study in Addis Ababa on "why pregnant delay to attend prenatal care?" the proportion of respondents who made their first ANC within the recommended time (before or at 12 weeks of gestation) were 40.2% while those who initiate ANC late [after 12 weeks of gestation] were 59.8%. [29] Therefore, the prevalence of 59.8% was taken to estimate the sample size.

Significance level calculate d at 95% was confidence interval and margin of sampling error tolerable was a ssumed to be 5%.

$n = \frac{[Z_{\alpha/2}]^2.p.(1-p)}{w^2}$ ----------The minimum sample size for a very large population (N>10,000)

Where, p= the previous prevalence rate of late timing of first ANC visit = 59.8% (0.598)

w = margin of error to be tolerated = 5% (0.05)

$Z_{\alpha/2}$ at CI 95% = Z value at 95% CI = (1.96)

$$n = \frac{(1.96)^2.p.(1-p)}{(0.05)^2}$$

$$n = \frac{(1.96)^2.0.598.(1-0.598)}{(0.05)^2} = \frac{3.8416 \times 0.598 \times 0.402}{0.0025} = \frac{0.9235}{0.0025} = 369.4 \sim 369$$

n = **369**

Therefore, 369 samples with 5% contingency [total of 387 samples] was included in this study.

4.7. Sampling Techniques

Among 10 subcities in Addis Ababa, three sub-cities were randomly selected. From health centers found in these three subcities, seven health centers were selected based on their second quarter performance report of 2006 E.C. Then the total sample 387 was distributed to each health centers based on their proportion of performance using proportion (k=3.8). Therefore, every 4th mothers were interviewed.

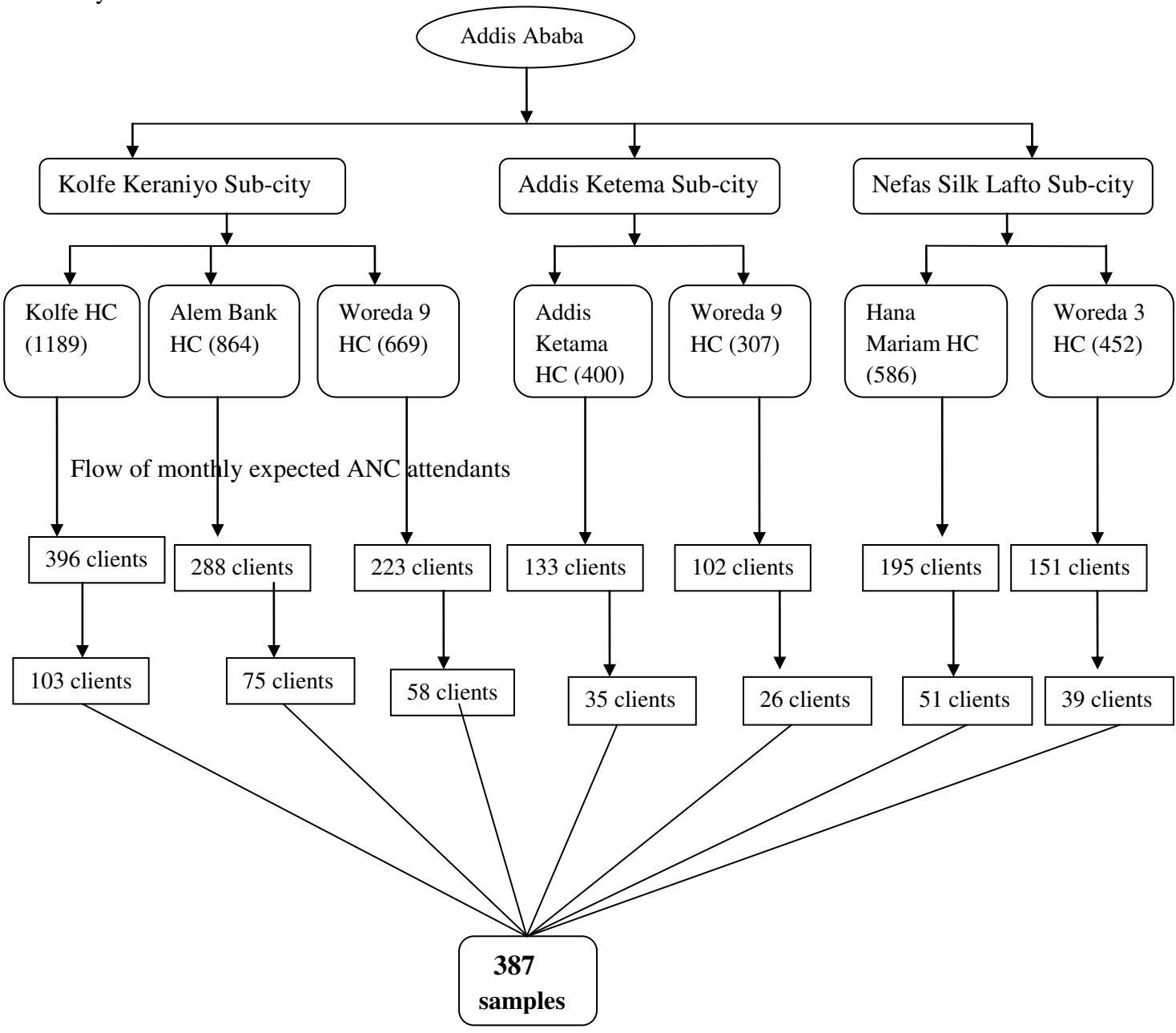

Figure 2: Schematic representation for sampling procedure

4.8. Data Collection

4.8.1. Data Collection Tools

Data collection process was performed using structured and open-ended questionnaires, which were prepared in English language and translated into local language (Amharic); then retranslated into English by another translator to check consistency. Then the result was reported in English. The questionnaires were including information about:

a) socio-demographic characteristics including age, religion, ethnicity, distance from hospital, level of education of the pregnant woman and her partner, their occupation and marital status; source of information.

b) obstetric history of the pregnant woman including date of last normal menstrual history , weeks of amenorrhea , gravidity, history of abortion and history of any problem in current or previous pregnancy; time of first ANC initiation.

c) reasons for coming late including whether they had sought any medical care somewhere before coming to the health center, who decides that they attend antenatal care, what they thought as the right gestation age at which they should start attending antenatal care and why they had come late for the first antenatal care visit.

4.8.2. Data Collection Techniques

Nurses and Midwives from respective health centers interviewed the selected pregnant mothers who fulfill the inclusion criteria. The data collection was conducted in a private and calm environment to ensure confidentiality. Before data collection, the purpose of data collection,

importance of the study as well as the significance of fidelity (telling true information) was told to the participants in order to maximize the response rate and generate quality data as intended. Finally, the process of data collection supervised and controlled regularly by one employed supervisor as well as the principal investigator. The collected data was checked for completeness and consistencies; and any confusion on data collection and/or responses was handled on discussion immediately before data entry.

4.9. Study Variables

4.9.1. Dependent Variable

Age of pregnancy in weeks at first ANC visit was treated as a continuous variable and also be classified into early and late entry to ANC.

4.9.2. Independent Variables

Socioeconomic and demographic factors include - Maternal age, marital status, Maternal Education, Occupation, Ethnicity and Religion, Family income, Residence and Access to service.

Obstetric History: Parity, Mother's childbirth experience

Past experience: Previous Utilization of Service, Perceived Quality of Service, Cost of Maternal Service.

4.10. Operational Definitions

Early initiation of ANC – Refers to pregnancy-related care received from a skilled health care professional within the first three months of pregnancy.

Normal Antenatal Visit- The first ANC visit should occur in the first trimester, around or preferably before 16 weeks of gestational age.

Late ANC: Refers to pregnancy-related care received from a skilled health care professional but initiated after 16 weeks of gestation.

Perception: In this study, perception refers to how pregnant mothers see or regard antenatal care they receive from health care providers.

Knowledge: implies that women are seen as well informed and that they responded to timing of first ANC visit correctly in accordance to WHO recommendation.

4.11. Data Quality Control

Structured and standardized interview questionnaire adopted from previous thesis on "why pregnant women came late for ANC?" were used. Training of data collectors on information about the research objectives and data collection tools and procedures, and interview methods was conducted for one day. Supervision of data collectors were made two times at each health center by assigned supervisor and principal investigator. The data collected was carefully checked for completeness as well as consistencies in the field by supervisor and principal investigator.

4.12. Data Analysis

Each completed questionnaire was coded. The collected data were entered into a computer by principal investigator using Epi info version 3.5.4 and analyzed using Statistical Package for Social Sciences (SPSS) version 21 to determine the prevalence percentage of late initiation of first ANC, OR, chi-square. Statistical significance was evaluated at 95% level of significance using descriptive statistics. Finally the result was presented in statement, using table, graphs and charts.

4.13. Ethical Consideration

Ethical approval was obtained from the Institute Review Board (IRB) of Department of Nursing and Midwifery at Addis Ababa University. In addition, permission was obtained from Addis Ababa health bureau and each of the health centers where pregnant women was participating in the study. An explanatory statement outlining the research was provided for interested pregnant women and signed informed consent was obtained prior to commencing the interview and providing questionnaire. In order to respect the participants' privacy and confidentiality, the interviews was conducted only in the presence of the interviewer and the interviewee. All participants were informed that they could withdraw from the study at any time they wish.

4.14. Dissemination and Use of Results

After approval the final findings of the research with possible conclusions and recommendations will be submitted to Addis Ababa University, school of postgraduate studies, to Federal ministry of health and Addis Ababa Health Bureau. The research results may be used by policy makers and other concerned bodies on how to enforce existing resources and search for further solutions in overcoming the problem. Finally, the extract of the article will be sent to local publishing agents for publication as well as public utilization of the finding.

CHAPTER FIVE: RESULTS

Out of 387 pregnant women planned to be included in this study, total of 383 study subjects have responded to the interview, making a response rate of 99%. The rest 4(1%) did not respond to the interview and or they did not specify the gestational age when they started the ANC.

Table 1: Number of respondents by health facility, Addis Ababa, 2014

S. No.	Health Centers	Sample	Responded	
			Frequency	Percent
1.	Addis Ketema Health Center	35	35	9.1
2.	Alem Bank Health Center	75	74	19.3
3.	Kolfe Keraniyo Health Center	103	102	26.6
4.	Kolfe Woreda 09 Health Center	58	57	14.9
5.	Hana Mariam Health Center	51	50	13.1
6.	Woreda 09 Addis Ketema Subcity Health Center	26	26	6.8
7.	Woreda 03 Nefas Silk Lafto Health Center	39	39	10.2
	Total	**387**	**383**	**100.0**

1. Socio-demographic characteristics

Out of 383 respondents who responded to the interview, majority (89.8%) were in age group of 19 to 34; the remaining 39(10.2%) of them were in the category of risky mothers age (less than 18 and greater than 35). The mean age of the respondents was 25.89 years (±5.06SD), ranging from 17 to 41 years.

The Ethnic compositions of the respondents were found to be Gurage 116(30.3%), Amhara 101(26.4%), Oromo 82(21.4%), Silte 44 (11.5%) and others 40(10.4). Respondents of Orthodox religion were found to be 181(47.3) followed by Islam 139(36.3%), Protestant 53(13.8%) and Catholic 10(2.6%). Majority 351 [91.6%] of the respondents were married. The

majority of educational status of most respondents were Primary and Secondary school 175 [45.7%] and 116 [30.3%] respectively [Table 2]. Over three in five 248(64.8%) of the respondents are housewives followed by 112(29.2%) employed either self, in government, private or NGOs and 23(6.0%).The mean monthly income of the families were reported to be 2681.58 (SD$\pm$3493.13) ranging from 200 to 30,000 ETB. Two in three (68.3%) of the respondents reported that their monthly income is below 3000 thousand (third quartile). The socio-demographic characteristics of the women and their partners were described in table 2.

Table 2: Socio-demographic characteristics of pregnant women attending ANC services at selected Public Health Centers in Addis Ababa, Ethiopia, June 2014

Characteristics (Variables) n = 383		**Number**	**Percent**
Age of respondents at time of study	Lower age group (≤18 years)	10	2.6
	Middle age group (19-34 years)	344	89.8
	Upper age group (≥35 years)	29	7.6
Ethnicity of respondents	Guragie	116	30.3
	Amhara	101	26.4
	Oromo	82	21.4
	Silte	44	11.5
	Others	40	10.4
Religion of respondents	Orthodox	181	47.3
	Muslim	139	36.3
	Protestant	53	13.8
	Catholic	10	2.6
Marital status	Married	351	91.6
	Single	11	2.9
	Cohabitation	12	3.1
	Divorced	9	2.3
Educational level of the respondent	No formal education	60	15.7
	Primary education (1-8)	175	45.7
	Secondary education (9-12)	116	30.3
	Tertiary education (Diploma and above)	32	8.4
Current occupation of the respondent	Housewife	248	64.8
	Employed (self, Gov't, NGO)	112	29.2
	Daily laborer	23	6.0
Husband's educational status	No formal education	24	6.3
	Primary education (1-8)	145	37.9
	Secondary education (9-12)	157	41.0
	Tertiary education (Diploma & above)	57	14.9
Husband's Occupation	Self employed	216	56.4
	Government employee	55	14.4
	NGO/private sector employee	51	13.3
	Daily worker	44	11.5
	Others	17	4.4
Monthly income	≤ 1000 ETB (Below Q_1)	133	34.9
	1000-3000 ETB (Q_1- Q_3)	127	33.4
	≥ 3000 ETB (Greater than Q_3)	123	32.2
Transportation cost to and back from HC	≤ 3.00 ETB (Below Q_1)	213	55.6
	3.00-9.00 ETB (Q_1- Q_3)	106	27.7
	≥ 9.00 ETB (Greater than Q_3)	64	16.7

1. **Timing of first ANC visit**

The proportion of respondents who made their first ANC before or at 16 weeks of gestation [within WHO recommended time for developing countries] are 275(71.8%), the rest 28.2% of the respondents commenced ANC service late (after 16 weeks of gestation), whilst 164 (42.8%) of the respondents visited ANC early within 12 weeks of gestation. In general, the timing of first ANC visit ranges from 4th to 39th weeks of gestation. The mean timing for first ANC visit was 15.47 weeks [SD$\pm$6.51].

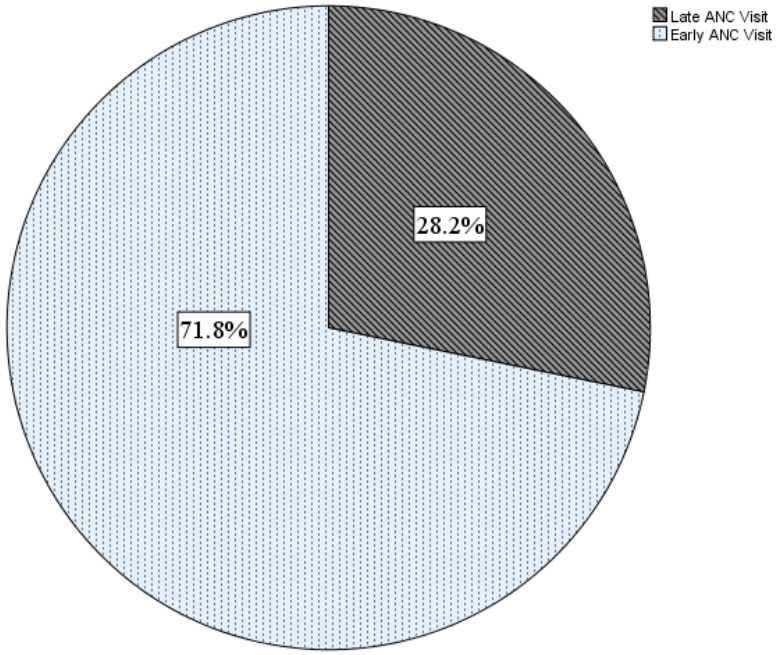

Figure 3: First ANC Timing in weeks of gestation for pregnant women attending ANC service at public Health centers in Addis Ababa

2. ***Obstetrics History***

One hundred twenty six [32.9%] of respondents were parity zero. Sixty nine (18%) of the respondents have had history of at least one abortion. Of these women who have had history of abortion, 40(58%) were spontaneous, 27(39.1%) were induced abortion while 2(2.9%) of them

have had both types of abortion with frequencies of abortions similarly ranging from one episode to four times for both types.

Eighteen (4.7%) of the respondents had history of at least one child death and 9 (2.4%) have had history of at least one still birth. Every ten women (9.9%) have history of caesarean section (C/S) delivery but the remaining 345(90.1) have not.

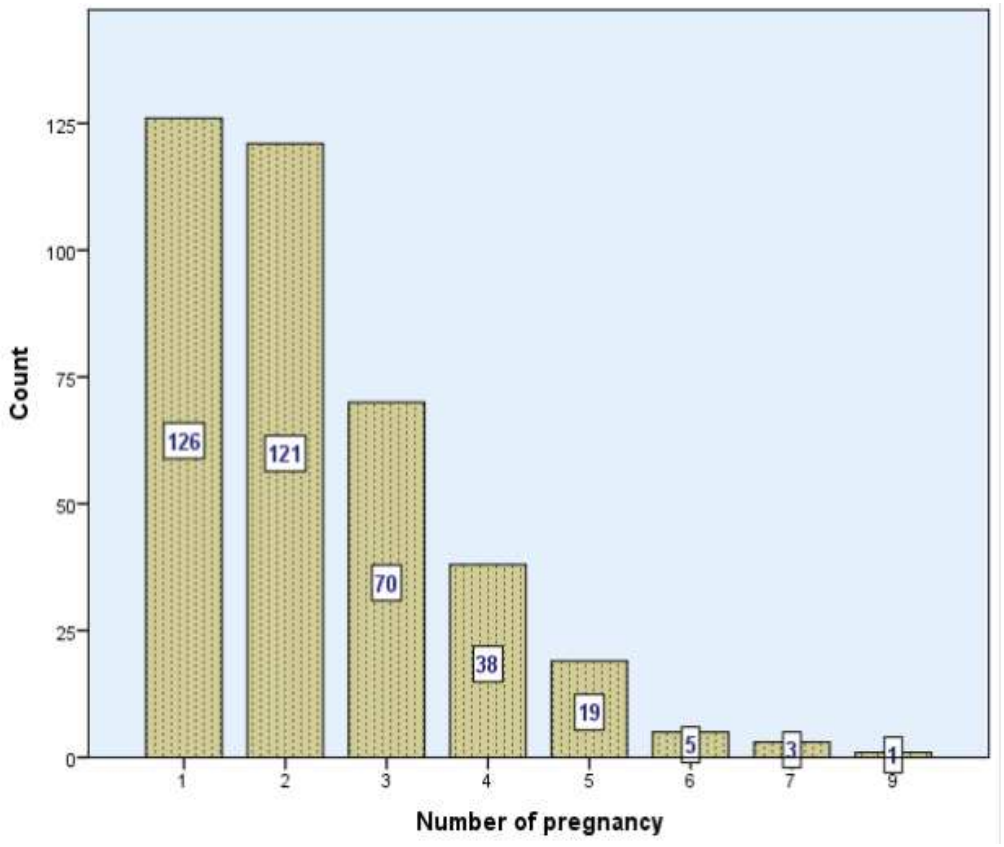

Figure 4: Bar graph depicting number of pregnancies for respondents attending ANC service at public Health centers in Addis Ababa

3. Knowledge and perception of ANC service utilization and timing of first ANC visit

Three hundred sixty two (94.5%) and 365(95.3%) of respondents perceived and rated that ANC is highly important for the health of the mother and fetus respectively. The remaining

proportion reported that, its importance is medium both for the mother and fetus. No one complained as the importance is less or no importance for the mother, fetus or both.

Three hundred sixty (94%) of the respondents perceived that the correct time of ANC visit was before 16 weeks of gestation, on the other hand 268(69.9%) of the respondents perceived that the correct time of ANC visit was before 12 weeks of gestation

Three hundred thirty (86.2%) of the respondents reported that a woman needs to attend ANC services four or more times under normal circumstances, but the remaining 53(13.8%) thought three or less times.

4. Past history of ANC service utilization and timing of ANC visit

Two hundred forty (62.7%) of the respondents have ever attended ANC services while 143 (37.3%) not. Out of 211 respondents who informed the time that they had started ANC service for the last pregnancy preceding this one, 161(76.3%) reported that they had started with in first 4 months of pregnancy while 50(23.7%) started after16th weeks of gestation (see bar graph below). For the previous ANC service utilization, the median waiting time for the first visit was 2 hours and an hour for the repeat visit.

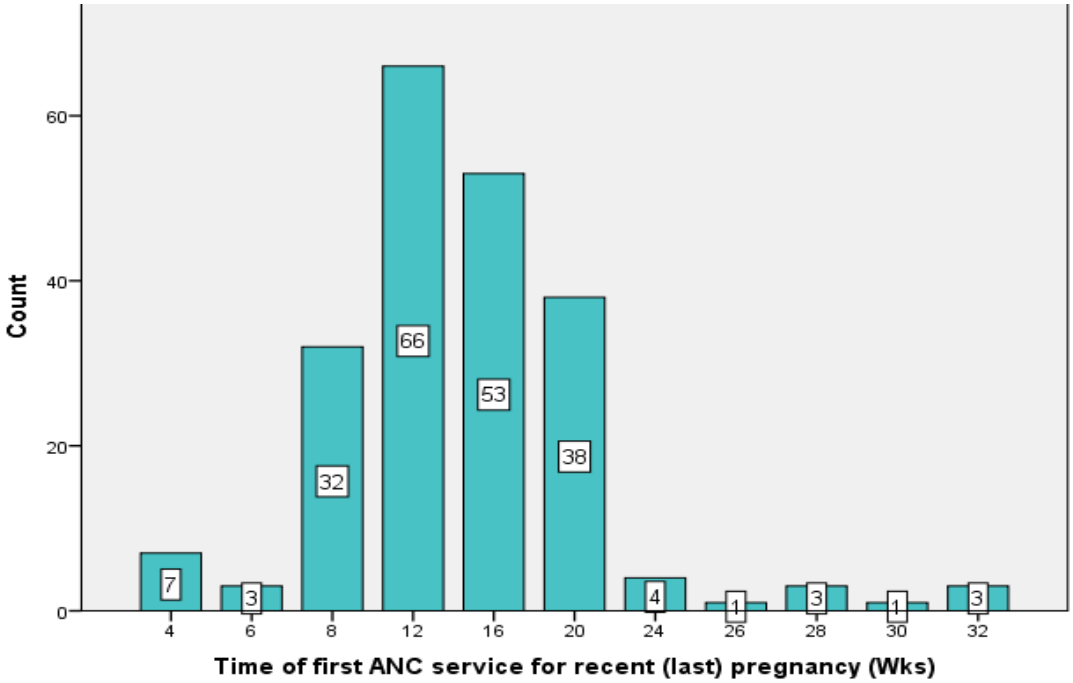

Figure 5: Time at which the pregnant women started ANC service for the recent (last) pregnancy in weeks

Out of 240 respondents who have ever attended ANC services, 135(56.3%) reported that they were required any payment. Of this 113(83.7%), 58(43%), 36(26.7%) and 19(14.1%) were for ultra sound, laboratory, drugs and examination card respectively. Regarding to the amount of payment, 120(88.9%) paid more than 50 ETB while the rest 15(11.1%) paid less than 50 ETB. Twenty one participants complained that there were missed investigations in previous, due to shortage of money, especially ultra sound.

5. Previous service utilization and level of satisfaction

Of all 240 (62.7%) participants who had ever attended ANC service, almost all of them reported that they were satisfied with staff approach. Again the satisfaction rate for charge of service, privacy, waiting time and laboratory service were, 99.2%, 99.6%, 97.9% and 96.2% respectively with different degree of satisfaction from highly satisfied to medium.

Table 3: Rate of satisfaction on different items of service for previous ANC among pregnant women attending ANC service at selected Health Centers, Addis Ababa, 2014

Variables (n=240)	Highly satisfied		Satisfied		Medium		Not satisfied		Highly not satisfied	
Satisfaction rate on items of service	N	%	N	%	N	%	N	%	N	%
1. Staff approach	164	68.3	64	26.7	18	7.5	---	---	---	---
2. Laboratory services	130	54.2	84	35	23	9.6	9	3.8	---	---
3. Waiting time	98	40.8	102	42.5	41	17.1	3	1.3	2	0.8
4. Privacy	165	68.8	75	31.25	5	2.1	1	0.4	---	---
5. Charge of service	214	89.2	22	9.2	4	1.7	1	0.4	1	0.4

6. History of current pregnancy and timing of first ANC visit

The median time of pregnancy was 28 weeks, ranging from 4 to 42 weeks. Of all respondents, 5(1.3%) were immediate postnatal. Over one in five (20.9%) of the respondents were informed by their husbands. Only one in three has been informed when to start ANC.

Table 4: History of current pregnancy and Timing of first ANC visit of gestation for pregnant women attending ANC service at public Health centers in Addis Ababa

Variable		Frequency	Percent
Time (duration) of pregnancy in weeks	≤20	101	26.4
	21-35	170	44.4
	≥36	112	29.2
Timing of first ANC visit (weeks)	≤16weeks	275	71.8
	≥17 weeks	108	28.2
Someone who informed them about ANC use	Health extension nurse	22	5.7
	Husband	80	20.9
	Mother	15	3.9
	Sister	22	5.7
	Neighbor	12	3.1
	Friends	49	12.8
	Other (media,	31	8.1

N.B. More than one can be a source.

Forty (12.5%) of the respondents have ever had problems in last delivery. Out of these 38 (79.2%) have gave birth by caesarean section (C/S) delivery.

Table 5: Medical conditions (problems) the pregnant women experienced in current pregnancy, Addis Ababa, 2014.

Medical conditions	Frequency	Percent
Gastritis	22	5.7
UTI	11	2.9
Edema (Leg)	8	2.1
Hypertension	4	1.0
Headache	3	.8

One hundred sixty two [42.3%] of the respondents reported that they have confirmed their pregnancy when they missed period once while the others alerted their pregnancy when they missed menses for more than one times. Likewise, 105(27.4%) of the respondents are confirmed by urine test.

Table 6: Method of confirmation of pregnancy by pregnant women attending Public health centers in Addis Ababa, Ethiopia, 2014

Variable (n=383)	Frequency	Percent
Missed period once	162	42.3
Missed Period twice	70	18.3
Missed period thrice and more	36	9.4
Physiological changes	52	13.6
Urine test	105	27.4
Ultra sound	29	7.6

Two hundred ninety seven (77.5%) of pregnancies were planned. Out of this, almost all (99.7%) of the plan were in agreement of husband.

7. Reasons for seeking ANC service late (after 16 weeks of gestation)

Out of 108 (28.2%) respondents who were late initiators of ANC visit, 51(47.2%) were due to lack of knowledge about appropriate time (perceived this was appropriate time) to begin ANC, 44(40.7%) fear of hardship, 22(20.4%) were busy, 18(16.7%) lack of knowledge about ANC service, 11(10.2%) complained economic constraint (especially cost for ultrasound, laboratory, medications, transportation)

Table 7: Results of Cross tabulation for characteristics of pregnant women attending ANC services with timing of first ANC visit, Addis Ababa, 2014

Variables(n=383)		Attended First ANC within 1st 4 months	
		Yes	No
		Count(%)	Count(%)
Woman's education	No formal education	26(43.3%)	34(56.7%)
	Primary education (1-8)	97(55.4%)	78(44.6%)
	Secondary education (9-12)	68(58.6%)	48(41.4%)
	Tertiary education (diploma & above)	21(65.6%)	11(34.4%)
Woman's occupation	House wife	91(36.7%)	157(63.3%)
	Employed(self, Gov't, NGO)	40(35.7%)	72(64.3%)
	Daily laborer	12(52.2%)	11(47.8%)
Education of husband	No formal education	9(37.5%)	15(62.5%)
	Primary education (1-8)	77(53.1%)	68(46.9%)
	Secondary education (9-12)	91(58.0%)	66(42.0%)
	Tertiary education (diploma and above)	35(61.4%)	22(38.6%)
experienced abortion	Yes	21(30.4%)	48(69.6%)
	No	143(37.3%)	240(62.7%)
Planned pregnancy	Yes	123(41.4%)	174(58.6%)
	No	20(23.3%)	66(76.7%)

8. Association of timing of first ANC among pregnant women

Bivariate analysis showed that respondents who were greater than or equal to 35 years of age (COR=7.200, 95% CI (1.468, 35.317)) and 19 to 34 (COR=3.820, 95% CI (1.055, 13.831)) were found 7.2 times and 3.82 times more likely to initiate first ANC early within 16 weeks of gestation when compared to women aged less than or equal to 18 years old.

The odds of women who have educational status of diploma and above (COR=10.0, 95% CI (2.183, 45.8))were found to be 10 times more likely to initiate first ANC within recommended time (16 weeks of gestation) compared to those who have no formal education. Respondents whose pregnancy was planned (COR=2.250, 95% CI (1.359, 3.724)) were found to initiate first ANC visit ANC within recommended time when compared to those whose pregnancy was unplanned.

The odds of women whose husband's educational level were diploma and above (COR=4.70, 95% CI (1.642, 13.454) were 4.70 times more likely initiate first ANC early than those whose husbands have no formal education. The detail of binary logistic regression of timing of first ANC visit was presented in table below (table 8).

Table 8: Logistic Regression on timing of ANC visit among pregnant women attending public Health Centers in Addis Ababa, 2014

Characteristics (Variables) n = 383		Total	Sig.	COR	95% CI		Sig.	AOR	95% CI	
					Lower	Upper			Lower	Upper
Age of women	≤18 years	10	0.051				**0.006 ****	7.127	1.775	28.618
	19-34 years	344	0.041*	**3.820**	1.055	13.831				
	≥35 years	29	0.015*	**7.200**	1.468	35.317				
Woman's Education	No formal education	60	0.011				**0.012 ***	2.297	1.203	4.386
	1^0 education (1-8)	175	0.196	1.494	0.813	2.744				
	2^0 education (9-12)	116	0.030*	**2.095**	1.073	4.091				
	3^0 education (Diploma & above)	32	0.003**	**10.000**	2.183	45.800				
Woman's Occupation	Housewife	248	0.139				0.629	1.210	0.559	2.621
	Employed (self, Gov't, NGO)	112	0.807	**1.063**	0.650	1.739				
	Daily laborer	23	0.047*	**4.466**	1.021	19.532				
Husband's educational status	No formal education	24	0.032				0.671	0.876	0.476	1.614
	1^0 education (1-8)	145	0.063	**2.295**	0.957	5.506				
	2^0 education (9-12)	157	0.024*	**2.738**	1.142	6.566				
	3^0 education (Diploma & above)	57	0.004**	**4.700**	1.642	13.454				
Husband's Occupation	Self employed	216	0.111				0.728	0.935	0.640	1.366
	Government employee	55	0.048*	2.112	1.005	4.438				
	NGO/private employee	51	0.047*	2.190	1.010	4.753				
	Daily worker	44	0.987	1.006	0.502	2.017				
	Others	17	0.776	0.861	0.306	2.423				
Perception of ANC timing	Correct perception	360	0.000**	10.800	3.898	29.924	**0.001 ****	0.046	0.007	0.300
	Incorrect perception	23	0.011	0.278						
Perceive this is appropriate time	Yes	285	0.000**	9.512	5.019	18.029	0.120	0.391	0.120	1.276
	No	55								

Have economic problem	Yes	14	0.046	0.273			0.259	3.046	0.440	21.090
	No	175	0.002**	8.216	2.203	30.642				
Was Busy	Yes	33	0.061	0.500			**0.002** **	12.422	2.497	61.809
	No	164	0.000**	5.289	2.374	11.782				
Lack knowledge	Yes	23	0.011	0.278			**0.024** *	9.658	1.343	69.454
	No	171	0.000**	8.712	3.066	24.751				
Planned Pregnancy	Yes	297	0.002**	2.250	1.359	3.724	0.777	0.862	0.309	2.404
	No	86	0.133	1.389						

**highly significant at p<0.01, *significant at p<0.05

From multivariate analysis of variables, age of women [AOR=7.127, 95%CI (1.775, 28.618)], educational status of the women [AOR=2.297, 95%CI (1.203, 4.386)], having correct perception of ANC timing [AOR=0.046, 95%CI (0.007, 0.30)], busy [AOR=12.422, 95%CI (2.497, 61.809)] and lack of knowledge about ANC service [AOR=9.658, 95%CI (1.343, 69.454)] were found to be independent factors for late initiation of first ANC visit.

CHAPTER SIX: DISCUSSION

A key objective of maternal health care programs has been to ensure that women present for ANC early in pregnancy in order to allow enough time for essential diagnosis and treatment regimens such as treatment of STIs and management of anemia [7]. In this study, 71.8% of the respondents have started ANC visit early (before or at 16 weeks of gestation) the WHO recommended time for developing countries. This is better performance when compared with findings of the Uganda Demographic and Health survey 2011 which showed that though over 90% of pregnant women attended antenatal care at least once, only 21% of women made their first antenatal care visit before the fourth month of pregnancy [27], and that of south-eastern Tanzania, where among the 405 pregnant women participated, only 29% initiated ANC attendance within the first four months of pregnancy [28]. This discrepancy might be due to the time variation of the studies and also due to the efforts being undertaken as a part of MDGs.

On the contrary, the proportion of women who initiate ANC visit early was less than the finding from New South Wales (Australia) where 84% entered ANC within 16 weeks of gestation [24]. This might be attributed by socio-demographic and economic differences between Ethiopia and New South Wales (Australia) since Australia is developed country and Ethiopia is developing one.

The proportion of pregnant women who entered ANC early (within 16 weeks of gestation) is similar with the findings from New Zealand where 73.4% of the women entered first ANC within 15 weeks [26].

Finding from this study also revealed that 164 (42.8%), of the respondents visited ANC early within 12 weeks of gestation while about three quarter (73.4) of participants in New Zeland

initiated their antenatal care early within 12 weeks of gestation [26]. This difference might be attributed by women's perception and health care seeking behavior differences. In addition to this, there might be policy differences according to WHO recommendation, where women in developing countries should start ANC within first 16 weeks of gestation, while the recommended time for women of developed nation's ANC initiation was within first trimester.

Result from this study also revealed that 164 (42.8%) of the respondents visited ANC early within 12 weeks of gestation. This is congruent with the finding of a study conducted in Addis Ababa among 630 pregnant women, which showed the proportion of respondents who made their first ANC before or at 12 weeks of gestation were 40.2% [29].

From the study conducted in New South Wales (Australia), the mean pregnancy duration at entry to ANC was 12.8 weeks [24]. But the findings from this study revealed that, the mean timing for first ANC visit was 15.47 weeks (SD$\pm$6.51). This may be attributed due to socio-demographic differences between Ethiopia and New South Wales. The difference in time of initiation of ANC might also be attributed by difference in policy, for instance, WHO recommends pregnant women of developing nations to start first ANC service within first 16 weeks of gestation, while for developed countries the recommended time at which a woman should commence first ANC visit is 12 weeks. On the other hand, according to 2011 EDHS report the median duration of pregnancy at the first visit was 5.2 months [6]. The mean timing for first ANC visit (17.27 weeks) from this study is about 4 weeks earlier than that of 2011 EDHS report (5.2 months). This great difference in finding might be as result of difference in source and study population since this study was conducted on urban population while the

report of EDHS includes urban and rural population where majority of the population in Ethiopia were residents of rural parts of the country.

Regarding knowledge and perception of ANC service utilization results from this study showed that, three hundred thirty (86.2%) of the respondents reported that a woman needs to attend ANC services four or more times under normal circumstances, but the remaining 53(13.8%) thought three or less times. Three hundred sixty (94%) of the respondents said that the correct time of ANC visit was before 16 weeks of gestation, on the other hand 268(69.9%) of the respondents perceived that the correct time of ANC visit was before 12 weeks of gestation. These result was almost congruent with the finding from Tanzania where over two third (6 7%) of the respondents said that ANC attendance should be initiated within the first three months of pregnancy [28].

Findings from this study showed that 94% of study participants, perceived the correct gestation age (within 16 weeks of gestation) at which a pregnant woman should start. When compared to study finding from Mulago hospital Uganda, where 72.7% of the study participants did not know the right gestation age at which a pregnant woman should start attending antenatal care. This great discrepancy might be due to lack of health education to community, but in Ethiopia almost every mother will get information on time to start ANC visit from health extension workers or someone else.

Two hundred forty (62.7%) of the respondents have ever attended ANC services while 143 (37.3%) not, this is smaller when compared with the study finding in New Zeland, where almost all (99.1%) mothers attended antenatal care at least once [26]. This much gap might be

due to good socio-demographic, educational status of women, community perception regarding pregnancy and policy differences.

Women and newborns need timely access to skilled care during pregnancy, childbirth, and the postpartum/newborn period. Too often, however, their access to care is impeded by delays-delays in deciding to seek care, delays in reaching care, and delays in receiving care. These delays have many causes, including logistical and financial concerns, unsupportive policies, and gaps in services, as well as inadequate community and family awareness and knowledge about maternal and newborn health issues [1]. This study also identified different factors associated with time of first ANC initiation among pregnant women such as age of women, educational status of women, lack of knowledge about ANC, and busy. Among the associated factors to time of first ANC attendance, educational level is congruent with findings from research done in Lesotho [32].

STRENGTHS AND LIMITATIONS OF THE STUDY

This study was conducted among pregnant women attending ANC at Addis Ababa selected governmental health institutions during the study period. The Governmental health centers had chosen because it is the first contact and easily accessible to the community for preventive health care aspects. The interviewers were nurses and midwives, who were different from the respective health centers to minimize bias and the response rate was 99%.

Despite the assumptions that governmental health center easily accessible to the community, other pregnant women may visit private clinics and hospitals for ANC. This study is limited to address pregnant women those attended ANC other than the public health centers. There could be socio-demographic differences to those pregnant mothers visiting other health institutions. The cross sectional nature of the study could cause difficulty of determining direction of association. The study result might be liable to recall bias

CHAPTER SEVEN: CONCLUSION AND RECOMMENDATION

7.1. CONCLUSION

Even if the services physically and financially accessible above quarter of the mothers did not practice timely booking of first ANC. Perceptions of respondents on timing of ANC were found the most statistically significant reason for early ANC visit. The major reasons for late booking were reported as younger age of women, educational status of women, lack of knowledge about appropriate timing of ANC, being busy and lack of knowledge about ANC services in general. Due to poor information provided to pregnant women on time of booking and follow-up visits the mothers are not encouraged for timely booking.

7.2. RECOMMENDATION

- More than quarter of women were found late entry to ANC visits; hence there is specific need for improvement in the timely booking of ANC in Addis Ababa health center and importance of timely booking should be stressed during community education programs. Further quantitative and qualitative studies on focused and quality ANC is needed (1) to look at health care system practices to conclude what changes are needed that would make possible more pregnant women to receive early and continuous ANC, (2) should also be other potential explanatory factors and expand to other aspects of ANC such as number of ANC visits, services provided during ANC visits and satisfaction of women and providers included.
- Addis Ababa City Administration Health bureau, community leaders, NGOs working on maternal and child health (MCH) services and women's associations should struggle on promoting the utilization of ANC specifically early visit.
- Provide different trainings for midwifes, nurses, and the leadership of health centers
- Since there is high number of pregnant women who are delaying to come for ANC before reaching health facilities, it needs effective integration between health center and health extension program in reaching late entering women.

ANNEXES

Annex i: References

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Annex ii: Questionnaire

i. **Study Information Sheet and verbal consent**

Good morning/afternoon [According to its convenience]. I am _____ who is the data collector for a research to be conducted by Zemzem Mohammed, a Master's student at Addis Ababa University, Department of Nursing and Midwifery. Today, I am here to collect information on "*assessment of first ANC initiation time and associated factors among pregnant women* in selected Public Health Centers in Addis Ababa, Ethiopia," where it is expected to identify the root causes for late initiation of first ANC and associated factors and it would help for further mitigation of bottleneck of maternal and neonatal morbidity and mortality, so I want to ask you some questions. There is no immediate and direct benefit in terms of money that you will earn from this information; rather I hope, you might get moral satisfaction due to the information you give now, where it is a resource in contributing for the community welfare in general. We believe that the study findings will help in order to improve care for mothers and their newborns.

If you take part in the study it will not take us more than 30 minutes, your name will not be included in the information, I promise to keep the confidentiality of your reply. There is no risk that comes due to your involvement in the study. Your participation is completely voluntary and you have full right to withdraw at any time in the course of data collection even after you get involved without being subject to any intimidation and incrimination to you. Your choice either to involve or not will not compromise any services that you ought to get from this health center. However, I hope that you will participate in this study considering that single genuine information you provide will contribute a lot to the fulfillment of the objective of the study.

As a result, I request you sincerely to participate in the interview by providing authentic answers. Do you have any questions that you need to be clarified more?

If you have any question you can contact the principal investigator at any time convenient for you using the following address:

Address: Addis Ababa University, Department of Nursing and Midwifery
Cell phone: +251-911-890932
E-mail: aslinasri@gmail.com

ii. Consent form:

I have been briefly informed about the study and I clearly understood the purpose, risks, benefit, and the right to participate and withdraw at any time. Since it doesn't affect my personal life, I agreed to take part in the study. I have been informed that there is no direct financial benefit for my participation. Consequently, I here approve my consent to take part in the study as an interviewee with my signature.

Signature _____

Date _____

Questionnaire Number

Name of Health Center: _____ Date: _____

Name of Data Collector: _____

No	Questions	Responses	Skip	Code
Section I. **Socio - demographic Characteristics of Study Participants**				
1.	Age of the participant	_____ years		
2.	Ethnicity/culture	1. Amahara 2. Oromo 3. Tigre 4. Guragie 5. Silte 6. Others [Specify] _____		
3.	Religion	1. Orthodox 2. Muslim 3. Protestant 4. Catholic 5. Others [specify]_____		
4.	Marital status	1. Single [Never married] 2. Married/live together 3. Cohabitation 4. Separated/divorced/widowed		
6.	Woman's level of education	1. No formal education 2. Primary education (1-8) 3. Secondary education (9-12) 4. Tertiary education (Diploma and above)		
7.	Woman's Occupation	1. Housewife 2. Self employed 3. Daily worker 4. Government employee 5. NGO/private sector employee 6. Student 7. Others		
8.	Husband's education	1. No formal education 2. Primary education (1-8) 3. Secondary education (9-12) 4. Tertiary education (Diploma and above)		
9.	Husband's Occupation	1. Self employed 2. Government employee 3. Daily worker 4. NGO/private sector employee 5. Student 6. Unemployed 7. Others _____		
10.	How much is your average family income per month?	_____ Eth. Birr		
11	Transportation cost that you paid for coming to and back from this health center?	1. No pay for transportation 2. If pay, Specify in ETB/month:_____		

Section II. Obstetrics History				
12	How many times you have been pregnant? (including abortions)	1. Number of Pregnancies:_____ 2. Number of abortions _____		
13	Did you ever have abortion?	Yes No →	15	
14	If there is abortion	1.Number of Spontaneous:_____ 2.Number of Induced:_____		
15	Para (Number of births)	1. Number of children alive_____ 2. Number of children died:_____ 3. Number of still birth_____		
16	Did you ever have problems in last delivery?	1. Yes 2. No		
17	Have you previous history of caesarean delivery?	1. Yes 2. No		
Section III. Knowledge of ANC				
18	How do you rate the importance of ANC for your health?	1. Highly important 2. medium 3. Less 4. Do not know		
19	How do you rate the importance of ANC for the fetus?	1. highly important 2. medium 3. Less 4. Do not know		
20	When do you think it is appropriate time to begin the ANC after amenorrhea?	_____ months		
21	How many times do you think a woman need to go for ANC to health facility during pregnancy under normal circumstance?	1. One Visit 2. Two Visits 3. Three Visits 4. Four or more Visits		
Section IV. Past history of service utilization				
22	Have you ever attended ANC?	1. Yes 2. No →	32	
23	If yes, for Q 22, for which pregnancy you attended?	1st pregnancy: 1. Yes 2. No		
		2nd pregnancy: 1. Yes 2. No		
		3rd pregnancy: 1. Yes 2. No		
		4th pregnancy: 1. Yes 2. No		
		5th pregnancy: 1. Yes 2. No		
24	If you attended ANC before this pregnancy, at what months you started service for the recent (last) pregnancy?	1. _____ months 2. I don't know		
Section V. Past Service related Variables				
25	What is the maximum waiting time you spend to complete checkup?	1. For the first Visit _____hrs 2. For the repeat Visits _____hrs		
26	Is there any payment you were asked for	1. Yes		

	checkup?		2. No		
27	If yes for Q 26, for what services you paid?		1. For consultation [card and Examination] 2. For laboratory 3. For ultrasound 4. For drugs 5. Other [specify]_____		
28	If you paid for any service charge, what is the maximum money you paid for a visit?		1. less than or equal 10.00 ETB 2. 11.00 - 20.00 ETB 3. 21.00 – 50.00 ETB 4. Greater than 50.00 ETB		
29	Is there any missed investigation in previous, due to shortage of money?		1. Yes 2. No		
30	If yes for Q 29, what?		1. Consultation [card & Examination] 2. Laboratory 3. Ultrasound 4. Drugs 5. Other [specify]_____		
31	How would you rate the following items of service in terms of your satisfaction	1. Staff approach	1. Highly satisfied 2. Satisfied 3. Medium 4. Not satisfied 5. Highly not satisfied		
		2. Laboratory services	1. Highly satisfied 2. Satisfied 3. Medium 4. Not satisfied 5. Highly not satisfied		
		3. Waiting time	1. Highly satisfied 2. Satisfied 3. Medium 4. Not satisfied 5. Highly not satisfied		
		4. Privacy	1. Highly satisfied 2. Satisfied 3. Medium 4. Not satisfied 5. Highly not satisfied		
		5. Charge of service	1. Highly satisfied 2. Satisfied 3. Medium 4. Not satisfied 5. Highly not satisfied		
Section VI. History of current pregnancy					
32	Time of Pregnancy in weeks	_____ weeks			
33	How did you know your pregnancy?	Missed menses once	1. Yes 2. No		
		Missed menses twice	1. Yes 2. No		
		Missed menses thrice & more	1. Yes 2. No		
		Physiological changes	1. Yes 2. No		
		Other signs like nausea	1. Yes 2. No		
		By examination	1. urine test 2. Ultrasound		
		Other (specify)	_____		
34	How many times did you receive antenatal care during this pregnancy (including this	1. It is my first time ⟶ 2. Two times		36	

	one)?	3. Three times 4. Four times 5. Greater than four		
35	If more than one visit for Q34, at what time did you start the first visit?	At_____ weeks/_____ month(s)		
36	Do you have problem in the current pregnancy?	Yes No		
37	If yes what?			
38	Before your first attendance of the ANC, was there any one who advised you to come?	1. Yes 2. No →	42	
39	If yes for Q 38, to above question, from whom you get advice?	1. Health extension worker 2. Husband 3. Mother 4. Sister 5. Friend 6. Other[specify]_____		
40	If you were advised by someone to attend ANC, Did he/she informed you when to start?	1. Yes 2. No →	42	
41	If you are advised on the time to start ANC, When does he/she advise you to start?	_____months after Amenorrhea		
42	In the present pregnancy, when did you start the follow up?	1. ___ months after amenorrhea 2. I don't know the exact months		
43	Why you decide to begin the follow up at this time? (That means Why you came late? (if greater than 16 weeks or 4 months)) [Encircle your choice/s]	1.I perceive this is appropriate time 2. Economic factor [money constraints] 3. Was busy 4. Fear of hardship 5. Was getting ANC from somewhere else 6. Lack of knowledge about ANC service 7. Inappropriate response of Doctors and nurses 8. Peer-influence 9. Others [specify]_____		
44	After your 1st visit, when did the Health workers appointed you for the 2nd follow-up	After_____ months of the first visit		
45	Is this pregnancy planned?	1.Yes 2. No →	47	
46	If this pregnancy is planned, did the plan include your husband?	1. Yes 2. No		
47	If this pregnancy is not planned, was it wanted by you after conception?	1. Yes 2. No		

48	If this pregnancy is not planned was it wanted by your husband after conception?	1. Yes 2. No		
49	If your pregnancy is unplanned or unwanted, did you want to undertake abortion?	1. Yes 2. No		

This is all what I want to ask you. Thank you for spending your time and valuable information you gave us. Do you have any question that I can address for you?

_____

_____

_____

<u>የመረጃና የፈቃደኝነት ማረጋገጫ</u>

ሀ. <u>የጥናቱ መረጃ</u>

እንደምን አደሩ፣ እንደምን ዋሉ፣ እንደምን አመሹ [እንደአስፈላጊነቱ]፡፡

ስሜ---------- እባላለሁ፡፡ እኔ የመጣሁት በአዲስ አበባ ዩኒቨርሲቲ የነርሲንግና ሚድዊፌሪ ት/ክፍል የሁለተኛ ድግሪ ተማሪ በሆነችሁ በወ/ሮ ዘምዘም መሀመድ እየተሰራ ባለዉ ጥናታዊ ፅሁፍ ዙሪያ በመረጃ ሰብሳቢነት ሲሆን በዛረሬው እለት አዚህ የተገኘሁት የነፍሰጡር ሴቶች የሚደረግ የቅድመ ወሊድ የጤና ክትትልን በተመለከተ በሚደረገው አነስተኛ ጥናት ዙሪያ መረጃ ለመሰብሰብ ነዉ፡፡ ጥናቱም ነፍሰጡር ሴቶች የመጀመሪያ የቅድመ ወሊድ የጤና ክትትልን ለምን ዘግይቶ እንደሚጀምሩ፤ እንዲሁም የእናቶችና የጨቅላ ህፃናት ህመምና ሞትን በመቀነስ ረገድ ከፍተኛ አስተዋፅኦ ያበረክታል ተብሎ ይገመታል፡፡ በዚህ ጥናት በመሳተፍዎ የሚያገኙት ቀጥተኛ የሆነ ጥቅም የለሌ ሲሆን ነገር ግን ከዚህ ጥናት የሚገኘዉ ዉጤት በቀጥታ ማህበረሰቡን የሚጠቅም ሲሆን ለእርስዎ ደግሞ እርካታን እንደሚሰጥ ተስፋ አደርጋለሁ፡፡

በጥናቱ ከተሳተፉ ወደ ግማሽ ሰዓት ልንቆይ እንችላለን፡፡ ስምዎት ከመረጃው ጋር አይካተትም፤የሰጡኝን መረጃ ሁሉ በሚስጥር እንደምጠብቅልዎ ቃል እገባሎታለሁ፡፡ ይህ ጊዜዎትን የሚይዝ ቢሆንም መላውን ሴቶች ሊጠቅም የሚችል የእገልግሎት ጥራት ማሻሻያ ለማድረግ የሚያግዝ በመሆኑ እንዲተባበሩኝ እጠይቅዎታለሁ፡፡ በጥናቱ መሳተፍዎ ሙሉ በሙሉ በፍቃደኝነት ላይ የተመሰረተ ሲሆን ከጥናቱ ማቋረጥ በፈለጉበት ወቅት የማቋረጥ መብትዎ ሙሉ በሙሉ የተከበረ ነው፡፡ በጥናቱ መሳተፍዎም ሆነ አለ መሳተፍዎ ከዚህ ጤና ጣቢያ የሚያገኙትን አገልግሎት በምንም መልኩ የሚቀይር ወይም የሚጎዳ አይደለም፡፡

በዚሁ መሰረት ትክክለኛ መረጃን በመስጠት በቃለመጠየቁ እንዲሳተፉ በአክብሮት እጠይቃለሁ፡፡

እንዲብራራሎ የሚፈልጉ ጥያቄ አሎት? እንዲብራራሎ የሚፈልጉ ጥያቄ ካሎት ዋና አጥኚዉን ከዚህ በታች በተጠቀሰው አድራሻ ማግኘት ይችላሉ?

የተወሰኑ ደቂቃዎች ባነጋግርዎ ፈቃደኛ ነዎት?

ፈቃደኛ ነኝ ☐ **ቃደኛ አይደለሁም** **አመሰግናለሁ!** ☐

የዋና አጥኚዉ አድራሻ፡ በአዲስ አበባ ዩኒቨርሲቲ የነርሲንግና ሚድዊፌሪ ት/ክፍል

ስ.ቁ +<u>251-911-890932</u> **ኢ.ሜል፡** aslinasri@gmail.com

ለ. <u>የፈቃደኝነት ማረጋገጫ ቅፅ</u>

የምርምር ጥናቱ ክፍል የሆኑ መረጃዎችና ሂደቶች ተብራርተውልኛል። እኔም በተብራራልኝ መሰረት የጥናቱን አላማ፣ ጥቅምና ጉዳት እንዲሁም የመሳተፍና በፈለኩበት ወቅት የማቋረጥ መብት እንዳለኝ ተረድቻለሁ። ምርምሩ በግል ህይወቴ ላይ ምንም አይነት አደጋ የማያስከትል መሆኑና ለተሳትፎዉ ምንም አይነት የገንዘብ ክፍያ እንደማይከፈለኝ ተነግሮኛል። ስለሆነም በዚህ የምርምር ጥናቱ ላይ ለመሳተፍ ፈቃደኛ መሆኔን በፊርማዬ አረጋግጣለሁ።

ፊርማ ----------

ቀን ----------

ቃለመጠይቅ **የመጠይቁ ቁጥር**

የጤና ጣቢያ ስም ----------**ቀን**----------**የጠያቂ ስም** [**ኮድ**]----------

ተ.ቁ	ጥያቄ	መልስ	ወደ--እለፍ	ኮድ
ክፍል አንድ፤ አጠቃላይ መረጃ(የማህበራዊና ኢኮኖሚያዊ መረጃ)				
1.	እድሜዎት ስንት ነው?	_____ ዓመት		
2.	ብሔር	1. አማራ 2. ኦሮሞ 3. ትግሬ 4. ጉራጌ 5. ስልጤ 6. ሌላ [ይገለጽ_____		
3.	ሐይማኖት	1. ኦርቶዶክስ ክርስቲያን 2. ሙስሊም 3. ፕሮቴስታንት ክርስቲያን 4. ካቶሊክ ክርስቲያን 5. ሌላ [ይገለጽ] _____		
4.	የጋብቻ ሁኔታ	1. ፈጽሞ ያላገባች 2. ያገባችና አሁን አብሮ የሚትኖር 3. አብሮ በመኖር የሚደረግ ግንኙነት 4. ያገባችና አብሮ የማትኖር/የፈታች/በሞት የተለያት]		
6.	የትምህርት ደረጃዎ	1. መደበኛ ትምህርት ያልተማረች 2. አንደኛ ደረጃ [1-8 ክፍል] 3. ሁለተኛ ደረጃና [9-12 ክፍል] 4. ዲፕሎማ እና ከዚያ በላይ		
7.	የሥራ ሁኔታ (የእርሶ)	1. የቤት እመቤት 2. እራሱን የቀጠረ/የግል የሚሰራ 3. ደመወዝተኛ [የመንግስት ተቀጣሪ] 4. የቀን ሥራ 5. መንግስታዊ ያልሆነ ድርጅት ተቀጣሪ 6. ተማሪ 7. ሌላ[ይገለጽ] ----------		
8.	የባለቤትዎ የትምህርት ደረጃ	1. መደበኛ ትምህርት ያልተማረ 2. አንደኛ ደረጃ [1-8 ክፍል] 3. ሁለተኛ ደረጃና [9-12 ክፍል] 4. ዲፕሎማ እና ከዚያ በላይ		
9.	የባለቤትዎ የሥራ ሁኔታ	1. እራሱን የቀጠረ/የግል የሚሰራ 2. ደመወዝተኛ [የመንግስት ተቀጣሪ] 3. የቀን ሥራ 4. መንግስታዊ ያልሆነ ድርጅት ተቀጣሪ 5. ተማሪ 6. ሌላ [ይገለጽ] ----------		
10	የቤትዎ የወር ገቢ በገንዘብ ሲተመን ምን ያክል ነው?	_____ ብር		

11	ወደዚህ ጤና ድርጅት ለመድረስና ለመመለስ የከፈሉት የገንዘብ መጠን በብር	1. ምንም አልከፈልኩም 2. የከፈሉ ከሆነ የገንዘብ መጠን___ ብር		
ክፍል ሁለት፤ አጠቃላይ የወሊድ መረጃ				
12	ስንት ጊዜ አርግዘዋል? [የአሁኑን ጨምሮ]	1. እስከ ወሊድ የደረሰ የእርግዝና ብዛት___ 2. የውርጃ ብዛት_____		
13	ውርጃ አጋጥመዎት ያዉቃል	1. አዎ 2. አይደለም → 15		
14	ውርጃ ካጋጠመዎት	1. በራሱ ጊዜ የወጣ ብዛት _____ 2. እርስዎ ያስወረዱት ብዛት _____		
15	ስንት ልጆች አሉዎት?	1. በህይወት ያሉ ብዛት _____ 2. ከተወለዱ በኋላ የሞቱ ብዛት_____ 3. ሞተው የተወለዱ ብዛት _____		
16	በባለፈዉ የወሊድ ጊዜ ያጋጠመዎት ችግር ነበር ወይ?	1. አዎ 2. አይደለም		
17	በባለፉት የወሊድ ጊዜያት በቀዶ ጥገና ተገላግለው ያዉቃሉ?	1. አዎ 2. አይደለም		
ክፍል ሦስት፤ የቅድመ ወሊድ [የነፍሰጡር] ምርመራ ክትት እውቀት				
18	የቅድመ ወሊድ [ነፍሰጡር] ምርመራ ለጤናዎት አስፈላጊነቱን እንዴት ይገነዘቡታል ?	1. በጣም አስፈላጊ ነው 2. በመጠኑ አስፈላጊ ነው 3. በጣም አነስተኛ ነው 4. አላውቅም		
19	የነፍሰ ጡር [የቅድመ ወሊድ] ምርመራ ለሽሉ [በማህፀንዎ ውስጥ ላለው ልጅ] አስፈላጊነቱን እንዴት ይገነዘቡታል ?	1. በጣም አስፈላጊ ነው 2. በመጠኑ አስፈላጊ ነው 3. በጣም አነስተኛ ነው 4. አላውቅም		
20	የነፍሰ ጡር / ቅድመ ወሊድ/ ምርመራ ወርአበባዎ ቀርቶ መቼ ቢጀመር ጥሩ ነው ብለው ያስባሉ ?	_____ ወር		
21	በአንድ የእርግዝና ወቅት ስንት ጊዜ ተመላልሰው ምርመራ ቢያደርጉ በቂ ነው ብለው ያስባሉ?	1. አንድ ጊዜ 2. ሁለት ጊዜ 3. ሦስት ጊዜ 4. አራት ጊዜና ከዚያ በላይ		
ክፍልአራት፤. የአገልግሎት አጠቃቀም ታሪክ				
22	የቅድመ ወሊድ [የነፍሰጡር መርመራ] ተከታትለው ያውቃሉ?	1. አዎ 2. አላውቅም → 32		
23	የነፍሰጡር ምርመራ ተከታትለው የሚያውቁ ከሆነ የትኛውን እርግዝና ነው?	የመጀመሪያ እርግዝና	1. አዎ 2. አይደለም	
		ሁለተኛ እርግዝና	1. አዎ 2. አይደለም	
		ሦስተኛ እርግዝና	1. አዎ 2. አይደለም	
		አራተኛ እርግዝና	1. አዎ 2. አይደለም	

			አምስተኛ እርግዝና	1. አዎ 2. አይደለም		
24	ከዚህ እርግዝና በፊት የነበረውን እርግዝና የቅድመ ወሊድ ተከታትለው ከሆነ ክትትሉን የጀመሩት ወርአበባዎ ቀርቶ በስንት ግዜ ነው?		1. _____ ወር 2. አላውቅም			
ክፍል አምስት፡ የአገልግሎት አጠቃቀም መረጃዎች [ከዚህ ቀደም ለነበረው እርግዝና]						
25	ለቅድመ ወሊድ ምርመራ ሲመጡ ምርመራውን ለማድረግ የሚፈጅብዎት ጊዜ ምን ያህል ነበር ?		ለአንደኛ ክትትል_____ ሰዓት ለቀጣይ ክትትዘ_____ ሰዓት			
26	ለነፍሰ ጡር / ቅድመ ወሊድ/ ምርመራ የከፈሉት ገንዘብ ነበር?		1. አዎ 2. የለም			
27	መልስዎ አዎ ከሆነ ለምን ጉዳይ ነበር የከፈሉት?		1. ለካርድ 2. ለላብራቶሪ 3. አልትራሳውንድ 4. ለመድኃኒት 5. ሌላ [ይገለጽ] _____			
28	ለነፍሰጡር /ቅድመወሊድ/ ምርመራ የከፈሉት ገንዘብ ካለ በአንድ ምርመራ ከፍተኛው የከፈሉት ገንዘብ ምን ያህል ነው?		1. ከ10 ብር በታች 2. ከ11-20 ብር 3. ከ21-50 ብር 4. ከ50 ብር በላይ			
29	በእጥረት ምክንያት ያላደረጉት ምርመራ አለ?		1. አዎ 2. የለም			
30	በገንዘብ እጥረት ምክንያት ያላደረጉት ምርመራ ካለ የትኛውን ነው ያላደረጉት		1. ለካርድ 2. ለላብራቶሪ 3. አልትራሳውንድ 4. ለመድኃኒት 5. ሌላ [ይገለጽ] _____			
31	የሚከተሉትን የአገልግሎት አሰጣጥ በእርስዎ የእርካታ መጠን ይግለፁት	1. የባለሙያዎች አቀራረብ	1. በጣም ረክቻለሁ 2. ረክቻለሁ 3. መካከለኛ ነኝ 4. አልረካሁም 5. በጣም አልረካሁም			
		2. የላብራቶሪ ምርመራ	1. በጣም ረክቻለሁ 2. ረክቻለሁ 3. መካከለኛ ነኝ 4. አልረካሁም 5. በጣም አልረካሁም			
		3. ምርመራው በሚፈጀው ግዜ	1. በጣም ረክቻለሁ 2. ረክቻለሁ 3. መካከለኛ ነኝ 4. አልረካሁም 5. በጣም አልረካሁም			
		4. ገበና አጠባበቅ	1. በጣም ረክቻለሁ 2. ረክቻለሁ 3. መካከለኛ ነኝ 4. አልረካሁም			

			5. በጣም አልረካሁም		
		5. የአገልግሎት ክፍያ	1. በጣም ረክቻለሁ 2. ረክቻለሁ 3. መካከለኛ ነኝ 4. አልረካሁም 5. በጣም አልረካሁም		

ክፍል ስድስት፡ የአሁኑ እርግዝና መረጃዎች

32	ካረገዙ ምን ያክል ጊዜ ነው?	_____ ሳምንታት			
33	ማርገዝዎትን በምንድን ነው ያወቁት?	1. የወር አበባ መቅረት [መምጣት ከነበረበት አንድ ወር መዘግየት]	1. አዎ 2. አይደለም		
		2. የወር አበባ መቅረት [መምጣት ከነበረበት ሁለት ወር መዘግየት]	1. አዎ 2. አይደለም		
		3. የወር አበባ መቅረት [መምጣት ከነበረበት ሦስት ወርና ከዚያ በላይ]	1. አዎ 2. አይደለም		
		4. የሰውነት ለውጥ [የጡት ጫፍ መለወጥ የመሳሰሉት]	1. አዎ 2. አይደለም		
		5. ማቅለሽለሽና የመሳሰሉት ምልክቶች	1. አዎ 2. አይደለም		
		6. ምርመራ በማድረግ	1. በሽንት ምርመራ 2.በአልትራሳውንድ		
		7. በሌላ መንገድ [ይገለጽ]	_____		
34	በዚኛው የእርግዝና ጊዜ የአሁኑን ጨምሮ ቅድመ-ወሊድ ምርመራ ስንተ አግኝቷል?	1. ይህ የመጀመሪያዬ ነው ⟶ 2. ሁለት ጊዜ 3. ሥስት ጊዜ 4. አራት ጊዜ 5. አምስትና ከዚያ በላይ ጊዜ		36	
35	ከአንድ ጊዜ በላይ ከተመረመሩ የመጀመሪያውን ቅድመ-ወሊድ ምርመራ መቼ ነበር የጀመሩት?	በ_____ሳምንት ወይም በ_____ ወር			
36	በአሁኑ እርግዝና ወቅት ችግር ወይም የሚያመውት ነገር አለ?	1. አዎ 2. የለም			
37	የሚያመውት ነገር ካለ ምን?				
38	የቅድመ ወሊድ /ነፍሰጡር / ምርመራ አስፈላጊነት ለዚህ ምርመራ ወደ ጤና ድርጅት ከመምጣትዎ በፊት ስለ ጥቅሙ ምክር የሰጠዎት ነበር ?	1. አዎ 2. አይደለም ⟶		42	
39	የቅድመ ወሊድ / ነፍሰ ጡር/ ምርመራ አስፈላጊነት ተመክረው ከሆነ ምክሩን የሰጠዎት ማነው?	1. የህብረተሰብ ጤና ሰራተኞች (የጤና ኤክስቴንሽን ሰራተኞች) 2. ባለቤትዎ 3. እናትዎ 4. እህትዎ 5. ጓደኛ 6. ሌላ /ይገለጽ/_____			

40	ምክር የሰጠዎት ሰው መቼ ምርመራ ማድረግ [መጀመር] እንዳለብዎት ነግርዎታል?	1. አዎ 2. አይደለም ⟶	42	
41	የነፍሰጡር ምርመራ መቼ ማድረግ እንዳለብዎት ነግሮዎት ከሆነ ወር አበባዎ ቀርቶ መቼ መጀመር እንዳለብዎት ነው የነገረዎት ?	ከ _____ ወር በኋላ		
42	የአሁኑን የነፍሰጡር ምርመራ ክትትል የወር አበባዎ ቀርቶ ከስንት ወር በኋላ ነው የጀመሩት?	1. ከ _____ወር በኋላ 2. አላውቀቅም		
43	በዚህን ጊዜ ምርመራ ለማድረግ ለምን ፈለጉ?	1. ትክክለኛ የምርመራ ጊዜ አሁን ነው ብዬ ስለማስብ 2. በኢኮኖሚ (በገንዘብ) ችግር 3. ጊዜ ስለሌለኝ 4. አስቸጋሪነቱን በመፍራት 5. የቅድመ ወሊድ /ነፍሰ ጡር/ ምርመራ አገልግሎት ከሌላ ቦታ እያገኘው ስለሆነ 6. ስለ የቅድመ ወሊድ /ነፍሰጡር/ ምርመራ ባለማወቅ 7. ከባለሙያ ተገቢ ያልሆነ አገልግሎት 8. የጓደኛ ግፊት 9. ሌላ [ይገለጽ] _____		
44	ለመጀመሪያ ጊዜ ለምርመራ ከመጡ በኋላ ሁለተኛውን ክትትል ከመቼ ወር በኋላ እንዲመጡ ነው የተነገርዎት?	ከ _____ ወር በኋላ		
45	ይህ እርግዝናዎ ያቀዱት ነበር?	1. አዎ 2. አይደለም		
46	ይህ እርግዝናዎ የታቀደ ከሆነ የእቅዱ ውሳነ ባለቤትዎን ያካተተ ነበር?	1. አዎ 2. አይደለም		
47	ይህ እርግዝናዎ ያለእቅድ ከሆነ ከተረገዘ በኋላ በእርስዎ ይፈለግ ነበር?	1. አዎ 2. አይደለም		
48	ይህ እርግዝናዎ ያለእቅድ ከሆነ ከተረገዘ በኋላ በባለቤትዎ ይፈለግ ነበር?	1. አዎ 2. አይደለም		
49	ይህ እርግዝናዎ ያለእቅድ እና ያለፍላጎት ከሆነ ለማስወረድ አስበው ነበር?	1. አዎ 2. አይደለም		

ጊዜዎትን ሰውተው ይህንን ጠቃሚ መረጃ ስለሰጡኝ በጣም አመሰግናለሁ።።

ሌላ አስተያየት ካለዎት ሊነግሩኝ ይችላሉ።።

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DECLARATION

I **Zemzem Mohammed**, the undersigned declare that this is my original work and has not been presented in this or any other University for a similar or any other degree award, and any partial or full sources of materials used should be fully acknowledged.

Name: **Zemzem Mohammed**

Signature: _____

Date: _____

This thesis has been submitted to:

Advisor: **Emebet Berhane**

Signature: _____

Date: _____

Place: Addis Ababa University College of Health Sciences, School of Allied Health Sciences Department of Nursing and Midwifery, Post Graduate program.