ADDIS ABABA UNIVERSITY

COLLEGE OF DEVELOPMENT STUDIES

CENTER FOR POPULATION STUDIES

ASSESSMENT OF QUALITY OF ANTENATAL CARE AND ASSOCIATED FACTORS AMONG PREGNANT WOMEN IN SELECTED PUBLIC HOSPITALS IN ADDIS ABABA

MESERET DESSALEGN

A THESIS SUBMITTED TO CENTER FOR POPULATION STUDIES, COLLEGE OF DEVELOPMENT STUDIES, ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN POPULATION STUDIES

DECEMBER 2020

ADDIS ABABA, ETHIOPIA

DECLARATION

I, Meseret Dessalegn, the principal investigator of this study am declaring that this study is my own. I have cited all various sources of information in this thesis. I am also declaring that this thesis has not been submitted to any other institution for the award of any masters, degree, diploma or certificate.

Principal Investigator's

Name Meseret Dessalegn (B.Sc.)

Signature _____

Date _____

This is to certify that the above declaration made by the candidate is correct to the best of my knowledge as an advisor.

Tariku Dejene _____ _____ _____

(Advisor) Signature Date

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

This is to certify that the thesis prepared by Meseret Dessalegn, entitled: *Assessment of quality of antenatal care and associated factors among pregnant women in selected public hospitals in Addis Ababa* and submitted in partial fulfillment of the requirements for the degree of Master of Science in Population Studies complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

Signed by the Examining committee:

External examiner_____ Signature_____ Date _____

Internal examiner_____ Signature _____ Date _____

Advisor _____ Signature _____ Date _____

Chair of the Center (Name and Signature)

_____

ABSTRACT

Background: Antenatal care is one of the recommended essential interventions to decrease maternal and neonatal mortality. It is an entry point to give care for pregnant women so as to prevent problems that potentially compromise the life of a pregnant woman and her fetus. The purpose of this study is to assess the quality of antenatal care and associated factors in selected public hospitals in Addis Ababa, Ethiopia, 2020.

Method: A cross-sectional study design was conducted in Ras Desta Damitew Memorial Hospital and St. Paul's Hospital Millennium Medical College. The data were collected using a structured questionnaire and observational checklist from 351 pregnant women attending their antenatal care at these hospitals in the period June 17 to July 7, 2020. The study participants were selected using systematic random sampling technique. Data were entered, analyzed and reported using the Statistical Package for the Social Sciences Version 24. A p-value of <0.05 was used to declare statistical significance in all inferential analysis made in this research.

Result: For the majority of the respondents (85.5%) it takes at least half an hour to be seen by the service provider. It was less than half of the respondents (37.3%) that were treated respectfully by the provider during their recent visit. One in three of the pregnant women (33.3%) were satisfied with the information provided by the healthcare provider. Furthermore, two in five (40.4%) of the respondents believed that they have received a quality care they were seeking. The result also indicated that the background characteristics of women are not significant predictors of quality of ANC service delivery. Longer waiting times (>1 hour) are detrimental to the delivery of a quality ANC service (β=-1.273). From among the process variables, an accurate and adequate provision of information to pregnant women was found to have a positive contribution (β=0.236) to the satisfaction of women with the ANC service.

Conclusion: The level of quality ANC service delivery is very low and calls for an effort in improving infrastructure, staff training on respectful and compassionate care and capitalize on provision of adequate information to pregnant women.

KEY WORDS: Quality, ANC, Public Hospitals, Addis Ababa

ACKNOWLEDGEMENTS

First and foremost, I would like to express my deepest appreciation and thanks to my advisor Tariku Dejene for his guidance, encouragement, support, and reviewing this thesis. And, I would like to say him, without your guidance and fruitful comments, this thesis simply would not be completed.

I would also like to acknowledge Addis Ababa University, College of Development Studies, Center for Population Studies for accepting me to attend the M.Sc. Program respectfully. Let my gratitude goes to the data collectors, supervisors and the whole staffs of the two hospitals namely Ras Desta Damitew Memorial Hospital and St. Paul's Hospital Millennium Medical College.

Last but not least, I would like to thank my family members and classmates in general and Mr. Mesfin Dessalegn, Mr. Yirga Dessalegn and Mr. Estifanos Negash Terefe in particular for their boundless support throughout the preparation of this thesis.

TABLE OF CONTENTS

CONTENTS

ABSTRACT i

ACKNOWLEDGEMENTS ii

TABLE OF CONTENTS iii

ACRONYMS vi

LIST OF TABLES vii

LIST OF FIGURES viii

LIST OF ANNEXES ix

CHAPTER 1: INTRODUCTION 1

1.1. Background of the Study 1

1.2. Statement of the Problem 2

1.3. Significance of the Study 3

1.4. Scope of the Study 4

1.5. Research Questions 4

1.6. Objectives of the Study 4

16.1. General Objective 4

16.2. Specific objectives 4

CHAPTER 2: LITERATURE REVIEW 5

2.1 Theoretical review literature 5

2.2 Empirical Review Literature 7

2.3 Conceptual framework 11

2.4 Summary of literature Review 12

CHAPTER 3: METHODS AND MATERIALS 13

3.1. Study area and Period 13

3.2. Study design and approach 13

3.3. Source Population 13

3.4. Study Population 14

3.5. Eligibility criteria 14

3.5.1. Inclusion criteria 14

3.5.2. Exclusion criteria 14

3.6. Sample size determination 14

3.7. Sampling Technique 15

3.8. Data collection Procedures 16

3.9. Data Quality Management 16

3.10. Data Analysis procedures 16

3.11. Operational Definition 17

3.12. Ethical Consideration 17

CHAPTER 4: RESULTS AND DISCUSSION 18

A. For the quantitative data 18

4.1. Background characteristics 18

4.2. Obstetric history of respondents 20

4.3. Input (Infrastructure, healthcare providers and supplies) and process 21

4.4. Output 24

4.4.1. Quality of ANC service and Client satisfaction 25

4.5. Determinants of quality of ANC service utilization 25

4.6. Discussion 29

4.7. Strength and Limitation 32

4.7.1. Strength of the study 32

4.8. Limitation of this study 32

CHAPTER 5: CONCLUSION AND RECOMMEDATION 33

5.1. Conclusion 33

5.2. Recommendation 33

REFERENCES 34

ACRONYMS

AA	Addis Ababa
AACAHB	Addis Ababa City Administration Health Bureau
ANC	Antenatal Care
EDHS	Ethiopian Demographic and Health Survey
FANC	Focus Antenatal care
HBSAg	Hepatitis B Surface Antigen
Hgb	Hemoglobin
IUFD	Intra Uterine Fetal Death
MMR	Maternal Mortality Ratio
RDDMH	Ras Desta Damitew Memorial Hospital
SPHMMC	St. Paul's Hospital Millennium Medical College
SPSS	Statistical Package for Social Sciences
STIs	Sexually Transmitted Infections
VDRL	Venereal Disease Research Laboratory
WHO	World Health Organization

LIST OF TABLES

Table 1: Background characteristics of respondents, Addis Ababa 2020..... 18

Table 2: Infrastructure and comprehensive physical examination of ANC attendants, Addis Ababa 2020 23

Table 3: Satisfaction with and perceived quality of ANC service, Addis Ababa 2020 25

Table 4: Result of generalized structural equation model, Addis Ababa 2020..... 26

LIST OF FIGURES

Figure 1 Conceptual framework of quality ANC..... 11

Figure 2: Obstetric history of respondents, Addis Ababa 2020..... 21

Figure 3: Waiting time and respectful care, Addis Ababa 2020..... 22

Figure 4: Laboratory investigations and information provision-confidence interval plot for proportion, Addis Ababa 2020..... 24

LIST OF ANNEXES

ANNEX I. Information sheet: English version 39

ANNEX II. Consent form: English version 40

ANNEX III. Questionnaire form: English Version 41

ANNEX IV. Information sheet: Amharic version 51

ANNEX V. Consent form: Amharic version 52

ANNEX VI. Questionnaire form: Amharic Version 53

CHAPTER 1: INTRODUCTION

1.1. Background of the Study

Antenatal care (ANC) wasa care given to a pregnant woman to promote and maintain optimal health of the mother throughout her pregnancy(Tadesse Berehe and Modibia, 2020).It includes recording medical history, advice and guidance on pregnancy, assessment of individual needs, screening tests, education on self-care, delivery and identification of conditions detrimental to health during pregnancy, first-line management and referral service if necessary(Tadesse Berehe and Modibia, 2020). The service (ANC) is a vital health service which senses and sometimes lessens the risk of coverage and quality, has been associated with adverse pregnancy outcomes(Zegeye, Bitew and Koye, 2013).

Antenatal care is asignificant opportunity for attaining pregnant women with number of interventions complications among pregnantwomen(Nwaeze *et al.*, 2013). The success of ANC depends on its policy formulation and implementation(Zegeye, Bitew and Koye, 2013). It also depends on functional and operational continuum of care with affordable, accessible, high quality care during and after pregnancy and childbirth. For ANC program to be effective, important components of ANC must be inadequate ANC, both in terms that may be vigorous to their health, well-being and that of their infants aiming that ANC used to optimize maternal and fetal health, to make medical or social interventions available to women where indicated, to offer women maternal and fetal screening, to improve women's experience of pregnancy and birth and to prepare women for motherhood whatever their risk status(In and Fulfillment, 2017).The lower quality of ANC service the higher maternal mortality rate.Globally, the Maternal mortality rate (MMR) fell by nearly 44% over the past 25 years, to an estimated 216 maternal deaths per 100 000 live births in 2015, from an MMR of 385 in 1990. Developing regions account for approximately 99% (302 000) of the global maternal deaths in 2015, with sub-Saharan Africa alone accounting for roughly 66% (201 000), followed by Southern Asia (66 000).The estimated lifetime risk of maternal mortality in high-income countries was 1 in 3300 in comparison with 1 in 41 in low-income countries showing many mothers in low-income countries are at more risk(Kaewkiattikun, 2017).

Moreover, majority of the countries with the highest maternal mortality are in sub-Saharan Africa, including Ethiopia. In Ethiopian Demographic and Health Survey (EDHS 2016), the maternal mortality ratio in Ethiopia was estimated at 412 deaths per 100,000 live births. Ethiopia as one of the Sub-Saharan countries, in which maternal care is extremely very poor. According to EDHS 2011 and 2016 only 34% and 62 % of women who gave birth in the five years preceding the survey received antenatal care from a skilled provider respectively one woman in every five (19%) made four or more antenatal care visits during the course of her pregnancy(CSA of Ethiopia, 2016).

1.2. Statement of the Problem

Effectiveness of antenatal care outcome relies on the quality of care provided during each ANC visit on health promotion, disease prevention, complication readiness and birth preparedness plan(Tadesse Berehe and Modibia, 2020).Although there is no consensus on the indicators for quality of ANC care, skill of ANC providers, staff motivation, budgetary provisions, integration with other health program and availability of consumables, drugs and basic equipment can seriously impact on the quality of ANC services. The clients also compliant as they face long waiting time and providers' interaction and way of approaching has a problem since they are busy or because of other reasons(Fagbamigbe and Idemudia, 2017).

Globally, about 25 percent of maternal deaths occur during pregnancy. Every day, approximately 830 women die from preventable cause related to pregnancies and child birth that can be avoided if women could have accesses to high quality maternity care. Insufficient care during this time interrupts a critical link in the continuum of care and affects both the mother and their babies(Fagbamigbe and Idemudia, 2017).

Low utilization of antenatal care accompanied with low quality of ANC will worsen the high maternal and per-natal mortality rate in developing countries including Ethiopia. The quality of care received by pregnant mothers are great concern to public health policy makers worldwide and in sub-Saharan Africa, and these mothers often complain about poor quality of services in public health care facilities, especially poor client care, unhealthy environment and apathy of health service. Despite the efforts of different stakeholders to improve quality health

care delivery, still there are perceived unsatisfactory services rendered by the staff of public hospitals in areas of care and treatment, relationship between patients and care givers, sanitation of working environment, access to basic information about their rights, consent and confidentiality of patients, among others(Govender, Reddy and Ghuman, 2018).

Based on many reports from Ethiopia and in other developing countries the health care delivery system not only falls short of reaching the majority of the people but also its quality is often compromised(Tadesse Berehe and Modibia, 2020).These services raise awareness of the danger signs during pregnancy, delivery, and the postnatal period. They also improve the health-seeking behavior of the client, orient the client to birth preparedness issues, and provide basic preventive and therapeutic care. Provision of quality ANC service requires the presence of, pertinent infrastructure, adequately trained health workers, infection control facilities, diagnostic equipment, supplies and essential drugs(Fagbamigbe and Idemudia, 2017). Furthermore, the antenatal care process requires the practice of guidelines that health providers should follow while offering care to ensure prevention, diagnosis and treatment of complications(Fagbamigbe and Idemudia, 2017).

This study assessed the quality of antenatal care available to pregnant mothers in the public hospitalsin Addis Ababa City administration to inform the management bodies of the AACAHB and public hospitals on essential data to help these pregnant mothers. And this had been proved that different studies had shown that the problem was existed.

1.3. Significance of the Study

This study was conducted among pregnant women who were attending antenatal care at Ras Desta Damitew Memorial Hospital and St. Paul's Hospital Millennium Medical College where quality of ANC service was still a major public health problem in developing countries including Ethiopia. Therefore, the findings of this study would help the two hospitals, Addis Ababa City Administration Health Bureau (AACAHB), Federal Ministry of Health (FMOH), policy makers and researchers to have clear the existing challenges in the hospitals on quality of ANC service and its associated factors. It specially would generate a better clue for the client satisfaction. It would also generate essential data that could be used as an input for further studies that could be conducted on same topic.

1.4. Scope of the Study

Thematically, this study focused only on the assessment of quality of antenatal care and associated factors among pregnant women in selected public hospitals in Addis Ababa. Spatially, the study was enclosed into two randomly selected public hospitals namely Ras Desta Damitew Memorial Hospital and St. Paul Hospital Millennium Medical College which are found in Addis Ababa City Administration. Temporally, the research was a cross sectional and methodologically, it was conducted using mono approach, quantitative cross-sectional study design.

1.5. Research Questions

The basic research questions that this study intends to answer are:

1. To what extent do pregnant women get quality ANC?
2. What are the factors associated with quality of ANC?

1.6. Objectives of the Study

16.1.General Objective

To assess the quality of antenatal care and associated factors at selected public hospitals in Addis Ababa, Ethiopia.

16.2.Specific objectives

To this end, the specific objectives of this study will be to:

1. To determine the magnitude of quality of antenatal care at selected public hospitals in Addis Ababa, Ethiopia, 2020.
2. To identify factors associated with quality of antenatal care at selected public hospitals in Addis Ababa, Ethiopia, 2020.

CHAPTER 2: LITERATURE REVIEW

2.1 Theoretical review literature

According to WHO, the standard quality of ANC is contained three components: the first one is assessment by taking history, physical examination, and laboratory tests. The second one is health promotion that includes nutrition advice, planning the birth, information regarding pregnancy subsequent contraception and breastfeeding, and immunization. And the last one is care provision covering of tetanus toxoid immunization, psychosocial support, and recordkeeping(Mollon, 2015). In this process, three factors constitute as components of quality: structure, process and outcome. Structure encompasses: the number and type of personnel, and type of equipment, aspects of organization. Process: activities involved in providing and receiving care, timeliness, continuity, and patient compliance. Outcome: measures of quality of life, functional status and patient satisfaction(Mollon, 2015).

Modern prenatal care was introduced by J.W.Ballantyne, a Scottish physician around 1902.His initial interest was focused on the prevention of fetal abnormalities. He later recognized that prenatal care might reduce maternal, fetal and neonatal deaths. By 1907, programs of organized prenatal care were available in New York City. Services were offered to pregnant women beginning no earlier than seventh month of pregnancy. In 1920, prenatal care was expanded to reach women early in gestation and more often. They were visited every two weeks until seven months of gestation and weekly until birth. Pregnant women were seen primarily in their homes by nurses. Nurses inquired about danger signs, checked the patient's blood pressure and urine, assess fetal heart tones and provide advice about diet, hygiene, exercise, and preparation for infant care(Mollon, 2015).

In 1989, the U.S. Department of Health and Human Service (DHHS) commissioned the Expert Panel on the content of prenatal care to determine the aspects of prenatal care that were good and should be preserved, what was needed and should be instituted, and components that were not useful or helpful and should be discarded. The expert panel recommended preconception visit and for low risk women to be seen at 6 to 8 weeks, 14 to 16 weeks, 24 to 28 weeks, 32, 36, and 38 weeks, and then weekly until birth. This

recommendation was based on consensus or expert opinions Subsequent studies showed the adequacy of the new WHO model for pregnant women with low risks(Incorvia, 2015).

Focused antenatal care (FANC) aims to promote the health of mothers and their babies through targeted assessments of pregnant women to facilitate Identification and treatment of already established disease, Early detection of complications and other potential problems that can affect the outcomes of pregnancy, Prophylaxis and treatment for anemia, malaria, and sexually transmitted infections (STIs) including HIV, urinary tract infections and tetanus. Prophylaxis refers to an intervention aimed at preventing a disease or disorder from occurring. Birth preparedness Nutrition, immunization, personal hygiene and family planning Counseling on danger symptoms that indicate the pregnant woman should get immediate help from a health professional(Joshi *et al.*, 2014; Williams and Broughton Pipkin, 2011).

In the case of uncomplicated pregnancies, the 2002 Focused Antenatal Care model of the WHO recommended at least four antenatal care visits; the first visit to take place before 16 weeks of gestation(villar, j., Bergsjo, 2002). However, this model has now been superseded by the 2016 WHO ANC model; where a minimum of eight ANC contacts is recommended(WHO, 2016)to address quality ANC service. Ethiopia has adopted this new approach to ANC from WHO and has been implementing in all the public health facilities(Woyessa and Ahmed, 2019).

2.2 Empirical Review Literature

Millennium Development Goals (MDG) achievements indicate level of quality of ANC in developing countries is not as satisfactory at all level. Studies conducted in some developing countries to assess the quality of antenatal care provided at public rural and urban facility setting in related to different inter related indicators show that ANC service provided was at lower standard level of quality. Studies indicate that only 1 in 40 ANC received pregnant women get quality care according to study standard(Said and Musa, 2020).

A study conducted in Nepal in 2015 has shown that 38% of antenatal care clients were very satisfied with the services provided at the health facility(Kumar Acharya *et al.,* 2018). Antenatal care (ANC) is a vital component of the continuum of care for mothers and babies and provides an opportunity for the timely diagnosis of obstetric conditions, educating women about the danger signs of pregnancy, the advantages of breastfeeding and the importance of family planning(Singh *et al.*, 2019).

Studies in Zambia very few facilities provide an optimum level of ANC services. About94% of pregnant mother receive below standard ANC visit, about 60% get standard 4 visits, from this only 29% of pregnant mother get quality ANC services. This study shows that only 3% of health facilities fulfill the optimum criteria developed for quality ANC services and 47% of health facilities provide adequate service, almost 50% of the facilities offer in adequate services(Kyei, Campbell and Gabrysch, 2012).

Study conducted in Khartoum show that the quality of antenatal care provided for pregnant women at Ribat hospital documentation of obstetric history on their parity, last menstrual period and expected date of delivery was 99.35%,98.3%and 97.2% respectively ,on obstetric examination Blood pressure 88%,fundal height measured for 93.3% and fetal heart beat cheeked for 81.3% . Laboratory test was done for 62%. In this study find that pregnant women were not satisfied because of incomplete service were provided for them(Denu, 2017).

Cohort study conducted in Vietnam shows that 88% of pregnant women use antenatal service and 94.4% received skilled birth attendant, even if there is increased level of utilization of ANC service there was discrepancy in Rural and Urban settings this was because of Poor

quality service indicated in rural setting 23.6% counseling of ANC ,35.5% Urine test and urban 84.6%,88.1% respectively(Kim Streatfield *et al.*, 2014).

A study done in Ghana found out that wealth status, age, ownership of health insurance (especially for rural women), educational attainment, birth order, religion and administrative region of residence were the significant predictors of the intensity of antenatal care services utilization. The utilization rate increased in wealth status. it also found significant statistical relationship between residence and antenatal care utilization(Sakeaha *et al.*, 2017). This finding reinforces the differences in health facilities between the rural and urban areas of Ghana(Sakeaha *et al.*, 2017).

Study conducted in Nigeria shows that Positive Correlation between Client satisfaction and Health care utilization. Majority of pregnant women 83%, of service provided were satisfied by quality of ANC they received and they show willingness to recommend others and to use the facility for the subsequent pregnancy. This study shows that high cost increases client satisfaction, this may perceive high quality by high cost, health care provider attitude has the higher value for satisfaction of pregnant women(Nwaeze *et al.*, 2013).

Study conducted in Pakistan revealed that the overall ranking of quality of clinical assessment done 72% was poor, 23%of clinical assessment was average and only 5% service provided with good quality. On health promotion and education counseling about 92 % of the client not get advices and 2% of mother gets standard advice depending on service delivery protocol practice, on treatment there was better practices for supplementation of Iron, anti-malaria drug and tetanus toxoid provided about 66% to 69% of clients. Overall only 44%of pregnant mother get good quality care and about 32% of mother not gets standard quality ANC service, from all pregnant women provided antenatal care only 50% of mothers were satisfied(Majrooh *et al.*, 2014).

Another community based cross sectional study conducted in Kenya shows that service provided for pregnant women not sufficient and not fulfill the components of antenatal care, this brings low facility delivery service, only 14 % of pregnant women told about importance of institutional delivery and birth preparedness plan(Denu, 2017).Study done at shows that supply for ANC service was adequate and more than 96% of pregnant mother was

investigated, in related to health education and promotion 29%to 37.2% of mother provided. Mother advised for danger sign of pregnancy was less than 50% at all level, this result was related to study conducted at Kenya Kenyan hospitals(Nakamya, 2015).

The majority of the women do not obtain the four ANC visits during pregnancy as recommended(Ousman *et al.*, 2019). The odds of having at least four ANC visits were significantly lower among women: below age of 20, those who were living in the rural areas, or Muslim. In contrast, participants with higher educational status, higher socio-economic level, who exposed to mass media, and self-reporting decision empowerment were significantly associated with having at least four ANC visits(Ousman *et al.*, 2019).

A cross-sectional study conducted in Addis Ababa selected hospitals (Black lion specialized Hospital, Zewditu Memorial Hospital and Ghandi Memorial Hospital) whose overall satisfaction of study participants was 90%,(Muzemil, 2014) the findings the studies done in south west of Ethiopia, 84.5%(Abate, Salgedo and Bayou, 2015), and northern part of Ethiopia, 52.3%(Ejigu, Woldie and Kifle, 2013a). Despite high level of overall satisfaction in the participants, there was difference of satisfaction in different aspect of ANC services rendered to the study done in Bahir Dar showed that more than half of clients were not get quality ANC .The reason they gave was absence of clean latrine and inadequate water supply, receiving incomplete information about ANC, inadequate waiting area and seats, absence of privacy, long waiting time and difficulty to understand the provider (Ejigu, Woldie and Kifle, 2013b).

Study done in Ambo town indicates less provision of technical cares for the mother causes poor quality, less than 10% of pregnant mother advised for danger sign of pregnancy(Nemera Yabo, 2015).Study conducted in south region at Sidama zone rural health centre only 33% of mothers are satisfied by physical examination done for them about 51% of pregnant mother was advised for danger sign of pregnancy. For all mother Hg, Urine, and blood group was not done only for 66.7% of participants HIV test done(Denu, 2017). These shows that service provided for clients were very poor quality it leads to poor satisfaction of clients.

A study conducted in Jimma using a mixed approach within the health system, the teaching of health professional students was given high priority, and that contributed to a lack of

continuity and privacy(Villadsen *et al.*, 2014).A study conducted in Tigray has shown that an overall satisfaction of study participants was 83.9% with different satisfaction level(Fseha, 2019). A study conducted in Addis Ababa by Meseret Denu showed that an overall satisfaction of client was as high as 84.9%. The satisfaction of women with secondary educational level was lesser than illiterate pregnant women(Denu, 2017).

Facility based cross-sectional study design quantitative method used to assess quality ANC service in Ambo Town Public health facilities showed that overall, 256 (89%) of clients reported as satisfied with services they had received(Nemera Yabo, 2015).Most of the least required basic resources recommended by WHO were accessible in the Higher 2 Health Center Jimma, Ethiopia(Abate, Salgedo and Bayou, 2015); however, there were partial sets of laboratory reagents and scarcity of some drugs. In this study, only 34.3% of clients received prescriptions for iron supplementation and most of the clients(94.6%) were satisfied with the accommodations of antenatal care service(Abate, Salgedo and Bayou, 2015). In general, the overall quality of the ANC service was judged as fair (69.5%)(Abate, Salgedo and Bayou, 2015).

A study conducted in Gamo Gofa zone, southern Ethiopia showed 52.6% of respondents were satisfied with the service provided and its qualitative part showed that, healthcare providers didn't have regular supervision, no updates on ANC, no budget for preparing mother's forum, and incentive(Alemayehu, 2017).A study conducted in St. Paul's Hospital Millennium Medical College by Wondimu Gudu showed that Maternal education, place of residence, family income, husband's approval, media exposure, pregnancy intention and previous bad obstetric history were the major individual factors affecting ANC service utilization(Gudu, 2018).

A study conducted in Nekemte showed that the overall ANC utilization noticed deceivingly seems satisfactory(Woyessa and Ahmed, 2019).A study conducted in Hossana Town's public health facilities showed that the overall magnitude of good quality of antenatal care service provision was 1230 (31.38%)(Tadesse Berehe and Modibia, 2020).

2.3 Conceptual framework

Quality is defined in different ways by different organizations. Quality health care is defined as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and were consistent with the then professional knowledge. The Institute Of Medicine define quality care as safe, effective, patient centered, timely efficient and equitable(Titaley, Dibley and Roberts, 2010). However, in this study, The Donabedian model was considered to be a conceptual model that provided a framework for examining health services and evaluating quality of health care. A conceptual framework that was addressed in this study was adapted from the Donabedian model which was universally accepted and had been widely used in the literature especially for the development of quality of health care. Based on the model, information about quality of care could be drawn from three categories namely: "structure," "process," and "outcomes.". The process was acted as an intermediate variable for this study. Socio-demographic and economic factors and the obstetrics history of the pregnant women were also the independent variables while the client satisfaction was the dependent variable to this study.

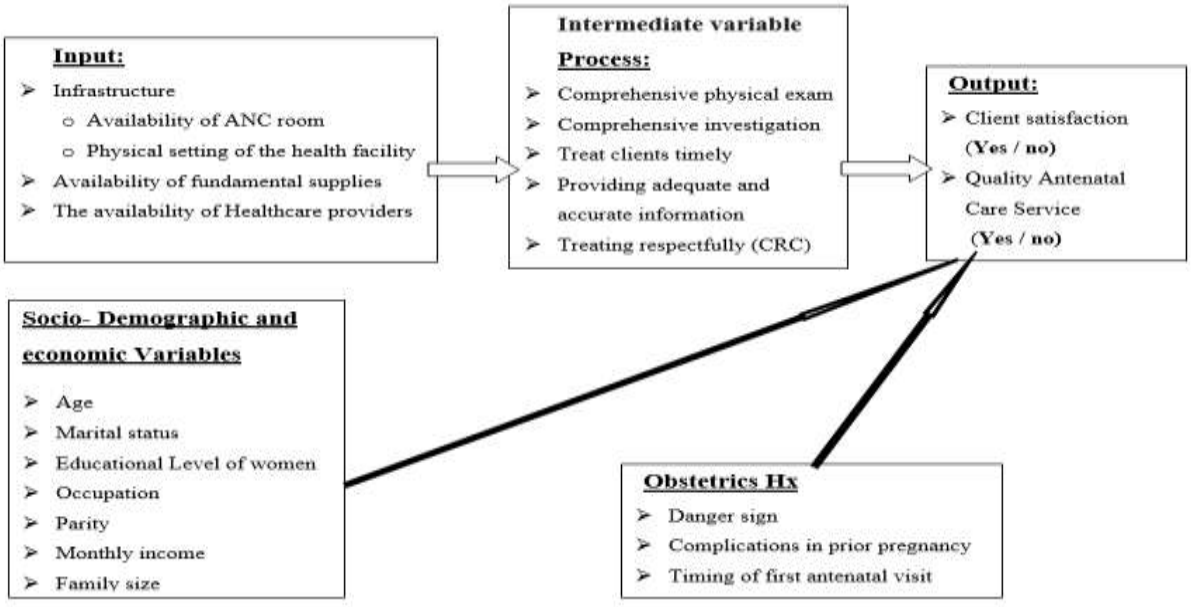

Figure 1 Conceptual framework of quality ANC

Source: (Voyce *et al.*, 2015)

2.4 Summary of literature Review

Various researches were conducted on quality ANC service in Ethiopia. From the related literatures reviewed, there were varies indicators of quality ANC like Socio –economic and Demographic factors such as age, marital status, educational status, occupation, parity and monthly income. Obstetrics history, comprehensive physical examination and investigations, waiting time, and respecting the clients, availability of resource, logistic and supply. This study was conducted to fill the gaps identified and looked up-to-dated results.

CHAPTER 3: METHODS AND MATERIALS

This section deals with the research design, methods, and study population, and how the samples will be selected from the study population and data analysis and interpretation.

3.1. Study area and Period

The study was be conducted in two hospitals found in Addis Ababa, namely Ras Desta Damitew Memorial Hospital (RDDMH) and St. Paul's Hospital Millennium Medical College (SPHMMC). These institutions provide specialized care to women with obstetrics and gynecologic problems, including antenatal care. St Paul which was a tertiary federal hospital had on average of four residents of gynecology and obstetrics, two interns and four midwives were available in the antenatal clinics for ANC services. Ras Desta Hospital was a general hospital under Addis Ababa Health Bureau. Three senior gynecologist and obstetrician, one resident of gynecology and obstetrics, one general practitioner, one intern, three midwives provided antenatal care in addition. In both facilities ANC service was provided for five working days and on average 40 and 80 clients per day in Ras Desta Hospital and St, Paul’s Hospital respectively. The data collection was undertaken in the period between June 17 to July 7, 2020 at the two selected public hospitals.

3.2. Study design and approach

This research employed a health facility-based cross-sectional research design study to assess the quality of antenatal care services and associated factors in the two public hospitals in Addis Ababa Ras Desta Damitew Memorial Hospital (RDDMH) and St. Paul's Hospital Millennium Medical College (SPHMMC) using a quantitative method. Data were collected using structured questionnaire and observational checklist prepared for Antenatal care clients.

3.3. Source Population

All pregnant women who were attending ANC services in MCH unit of public hospitals were considered as source population in this study.

3.4. Study Population

All randomly selected pregnant women who were attending ANC service at selected public hospitals was taken as study population in this study.

3.5. Eligibility criteria

3.5.1. Inclusion criteria

All pregnant women who were attending ANC service at public hospitals in Addis Ababa during data collection period were included in this study.

3.5.2. Exclusion criteria

All pregnant women who could not give informed consent (age <18 years, mentally impaired, critically ill and other related), were excluded from this study.

3.6. Sample size determination

The sample size for the quantitative data was calculated using a single population proportion formula:

$$n = \frac{(z_{\alpha/2})^2 \cdot pq}{d^2}$$

N=Sample size

Z= Confidence level at 95% = 1.96

P = Proportion of quality ANC Service was taken 67 % from Low effective coverage of FP and ANC in Ethiopia (Yakob et al, 2014) d = margin of error 5%. Assuming, proportion quality antenatal care service 67 percent and 95 percent confidence level use and 5 percent tolerable error and 10 percent was added for compensating possible non response rate. A total sample size was assumed to be 373; however, 351 study participants were participated with a response rate of 94.1%.

3.7. Sampling Technique

In this study,two hospitals were selected among from all public hospitals in Addis Ababa City Administration purposively.As Addis Ababa was the capital city of Ethiopia in addition to the minimal transportation cost to the principal investigator (PI), the two public hospitals namely; Ras Desta Memorial Hospital and St. Paul's Hospital Millennium Medical College were selected by lottery method. By taking their achievement into consideration and using Proportionate to Population Size (PPS), there had a sample size of 234 from SPHMMC and 117 from RDDMH using the following formula:

$$n_o = \frac{n * N_o}{N}$$

Where, no = proportion of participants in a specific hospital; No = Total number of participants who were attended with in specific hospital; n = calculated sample size; N = total number of participants in all the study hospitals. Therefore, a total of 351 pregnant women with a response rate of 94.1% were participating in this study.Besides, 30 pregnant women (16 SPHMMC from 14 from RDDMH) were under observation using observational checklist when they were getting ANC services in both hospitals of this study.

Dependent Variable

Quality of ANC service among pregnant woman in public hospitals in Addis Ababa. It was measured using the outcome (*see* description below). **Outcome:** was measured using perceived quality of service and satisfaction with the information provided

Independent Variables

Socio- Demographic and economic Variables included Age, Marital status, Educational Level of women, Occupation, Parity, Monthly income, and Family size.

Obstetrics Hx Danger sign, Complications in prior pregnancy and Timing of first antenatal visit.

Input (Infrastructure, manpower, and supplies). And the process was taken as an intermediate variable.

3.8. Data collection Procedures

Data was collected using structured questionnaire and observational checklist. It was prepared in English and then the English language questionnaire was translated to Amharic and then translated back to English for reliability purpose. Finally, the questionnaire was administered in Amharic language. In addition to the researcher, three midwifes working out of the selected health facilities were recruited for data collection. One day training was given to data collectors on the objectives of the study, the contents of the questionnaire and particularly on issues related to the confidentiality of the responses and the rights of respondents were considered critically based on the ethical principles of a research.

3.9. Data Quality Management

One week prior to data collection a pre-test was conducted on 19(5%) of the sample size on other hospitals which was out of the selected hospitals and some data quality dimensions like Its completeness, validity and consistency were rechecked(Sidi et al., 2012). Depending on the result of the pretest, corrections and modifications were made on the questionnaire before actual data were collected. The PI supervised data collection processes and checked for completeness of the data and correctness of the data collection procedure throughout the study.

3.10. Data Analysis procedures

The quantitative data were sorted out. The quantitative data, the analysis such as proportions, percentages, ratios, frequency distributions and appropriate graphic presentations as well as measures of central tendency and measures of dispersion made for describing data were presented. All variables with p-value of ≤ 0.25 in the Bivariable logistic regression analysis were taken as candidates to Multivariable logistic regression analysis. Multivariable logistic regression analysis was used to assess the relationship between dependent and independent variables and to adjust for potential confounders and orders the importance of quality of ANC. All variables with $p<0.05$ were considered as statistically significant to quality care for ANC service in the study. Data were entered, cleaned, analyzed and reported using the Statistical Package for the Social Sciences (SPSS) Version 24.

3.11. Operational Definition

Quality ANC: When clients got the component of ANC service in the healthcare system and responded as yes or no.

Client satisfaction: When study participants responded as yes or no based on the overall satisfaction of the quality ANC service given to them.

3.12. Ethical Consideration

This study was taken into consideration about the ethics of research. The "Institutional Review Board" (IRB) committee reviewed and approved this thesis to be conducted. An official letter was gained from the University of Addis Ababa. While contacting respondents, the purpose of the study was explained at the beginning of conversation. The full written consent of each study participant was first checked before starting interviews or observations done. Besides, the participants of this study were informed that their information would be kept confidential, and would be used only for the study purpose. The study was depending on the response of respondents as it is without misinterpretation or exaggeration.

CHAPTER 4: RESULTS AND DISCUSSION

A. For the quantitative data

4.1. Background characteristics

A total of 373 pregnant women were planned to be interviewed; however, 351 interviewees were successfully completed making the response rate of 94.1%. Two third of the sample were from St. Paul's Hospital Millennium Medical College (SPHMMC) and a third were taken from Ras Desta Damtew Memorial Hospital (RDDMH). One in ten of them were never married, 16.8% lived alone at the time of the interview and a third of them lived in a large family (>4 members). A quarter of the respondents were of age below 25 years and pregnant women of age 35 years and above constituted 28.5%. A little higher than one in five of the respondents (21.1%) had an at least 4 previous live births and another one in five (20.8%) of them had only one live birth before. Two in five of the pregnant women did not have any formal schooling (40.5%) and scores of the respondents (31.3%) had an at least secondary level of education. A little more than a third of the respondents (36.8%) were housewives and 13.9% were merchants. There were also scores of respondents who were government employees (26.8%) and working for private companies (22.5%) (Table 1).

Table 1: Background characteristics of respondents, Addis Ababa 2020

Characteristics and categories	No.	Percent
Health Facility		
SPHMMC	234	66.7
RDDMH	117	33.3
Age of respondent		

Characteristics and categories	No.	Percent
<25	89	25.4
25-34	162	46.1
35+	100	28.5
Marital status		
Never married	35	10.0
Married	316	90.0
Parity		
1	73	20.8
2	126	35.9
3	78	22.2
4+	74	21.1
Educational status		
Unable to read & write	75	21.4
Able to read & write	67	19.1
Primary	99	28.2

Characteristics and categories	No.	Percent
Secondary	61	17.4
Above secondary	49	13.9
Occupation		
House wife	129	36.8
Government employee	94	26.8
Private employee	79	22.5
Merchant	49	13.9
Family size		
Alone	59	16.8
2-4	175	49.9
>4	117	33.3

4.2. Obstetric history of respondents

Obstetric history of respondents is summarized in the chart below. It is noted that one in five (20.8%) of the respondents had complications during previous pregnancy. Moreover, among currently pregnant women attending ANC, it is only two-third of them that attended ANC during their previous pregnancy (65.3%). An alarming number of the respondents did not start ANC at the recommended time; the proportion of pregnant women with an appropriate timing

of first ANC visit was only 8.3%. What is more worrying is that the timing of first ANC visit for a significant number of them (29.9%) was extremely late (Figure 2).

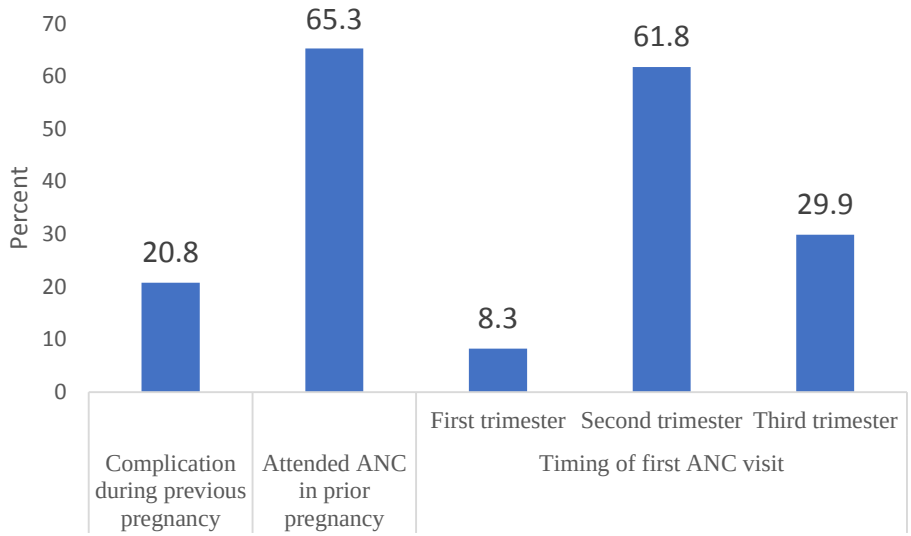

Figure 2: Obstetric history of respondents, Addis Ababa 2020

4.3. Input (Infrastructure, healthcare providers and supplies) and process

Both hospitals have their own ANC rooms. Nearly one-fifth 70 (19.9%) of the study participants showed that there was no iron supplementation. And also, by observing the way they were treated, Iron supplementation in RDDMH 42.9 % & 57.1% as good and very good respectively and in SPHMMC 43.8% & 56.2% as good and very good respectively.

At Ras Desta Damitew Memorial hospital the availability of washing facilities (water, soap, towel) to the study participants were 14.3%, 35.7%, 42.9% and 7.1% as very bad, bad, good and very good respectively. Where as in St. Paul's Hospital Millennium Medical College (SPHMMC) it was 12.5%, 68.8%, 18.8% and no as very bad, bad, good and very good respectively. Nearly a third of the respondents (32.2% with a 95% CI [27.0%, 36.8%]) reported of going back home without getting the service at health facility. Moreover, for the majority of the respondents (85.5%) it takes at least half an hour to be seen by the service provider which was longer time compared to other studies with waiting time of 30 minutes(Wondimu, Girma and Agedew, 2017). What is more, 46.2% of the respondents had to wait more than an hour to get the service. To top it all off, it was less than half of the

respondents (37.3%) that were treated respectfully by the provider during their recent visit. Despite the long waiting time and absence of respectful treatment of clients, the providers, however, gave an appointment to almost all the clients (96.9%) for the subsequent visit (Figure 3&Table 2).

Among study participants, 106 (30.2%), 105 (29.9%), 91 (25.9%) and 49 (14.0%) needed to improve the health care provider, supplies, infrastructures and service delivery respectively so as to get a better antenatal care.

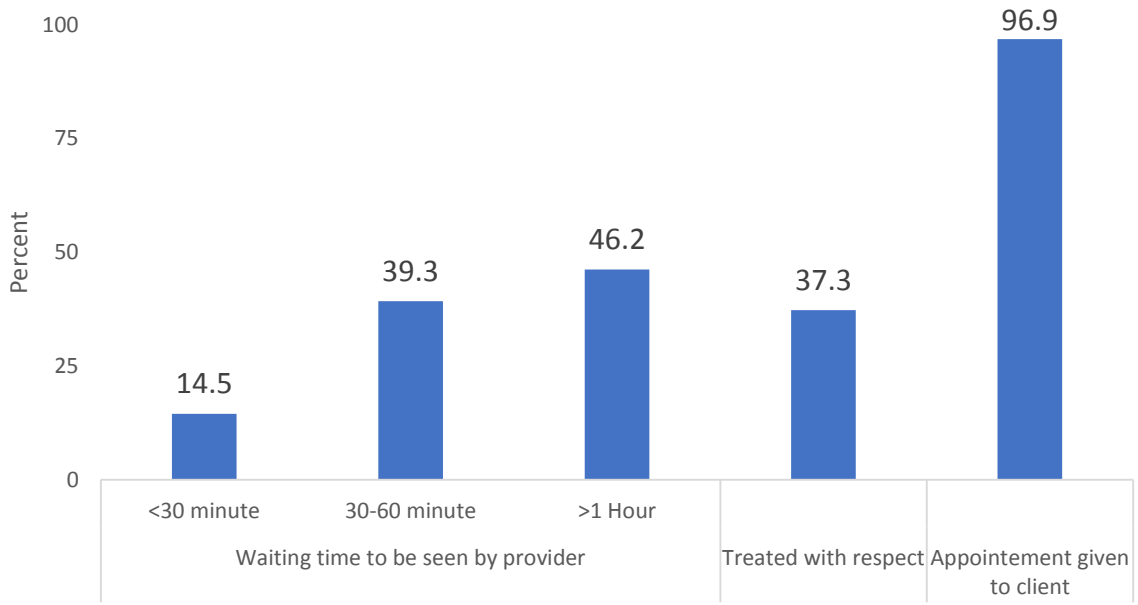

Figure 3: Waiting time and respectful care, Addis Ababa 2020

Regarding indicators of comprehensive physical examination, ultrasound examination (96.3% with a 95% CI of [94.3%, 98.3%]) was conducted for almost all the respondents and blood pressure measurement was taken for 86.3% of the clients (with a 95% CI of [82.7%, 89.9%]). Weight measurement (73.5% with a 95% CI [68.9%, 78.1%]) and evaluation of fluid retention (77.5% with a 95% CI [73.1%, 81.9%]) were also made as part of comprehensive physical examination. We have also note that pallor evaluation (60.7% with a 95% CI of [55.6%, 65.8%]) is the least conducted physical examination (Table 2).

Table 2: Infrastructure and comprehensive physical examination of ANC attendants, Addis Ababa 2020

Characteristics	Proportion	Std. Err.	95% CI	
Client went back home without getting service	.322	.025	.270	.368
Weight measured	.735	.024	.689	.781
Pallor evaluated	.607	.026	.556	.658
BP measured	.863	.018	.827	.899
Edema evaluated	.775	.022	.731	.819
Ultrasound	.963	.010	.943	.983

Laboratory investigations and provision of adequate information to the client is also summarized in figure shown under. About 90% of the respondents replied positively to hemoglobin, urine and HIV tests which can be considered as an almost universal practice among pregnant women clients. RH factor, VDRL, and blood group tests were also reported to have been conducted by a significant portion of pregnant women (at least 60%); however, the practice is not sufficient for at least a third of clients attending ANC did not have these investigations conducted for them (Figure 4-Panel (a)).

Provision of adequate information that would help ensure a positive pregnancy outcome is vital. According to the respondents, adequate information on danger signs of pregnancy (85.2%) and nutrition (72.6%) was provided to a good proportion of clients. HIV/STD (67.8%) and place of delivery (65.5%) were also discussed with clients by provider; however, there is still a room for improvement regarding information provision about these issues.

Discussion regarding newborn care is limited to only two in five of pregnant women (41.6%) indicating consultation regarding newborn care is neglected practice requiring an intervention (Figure 4-Panel(b)).

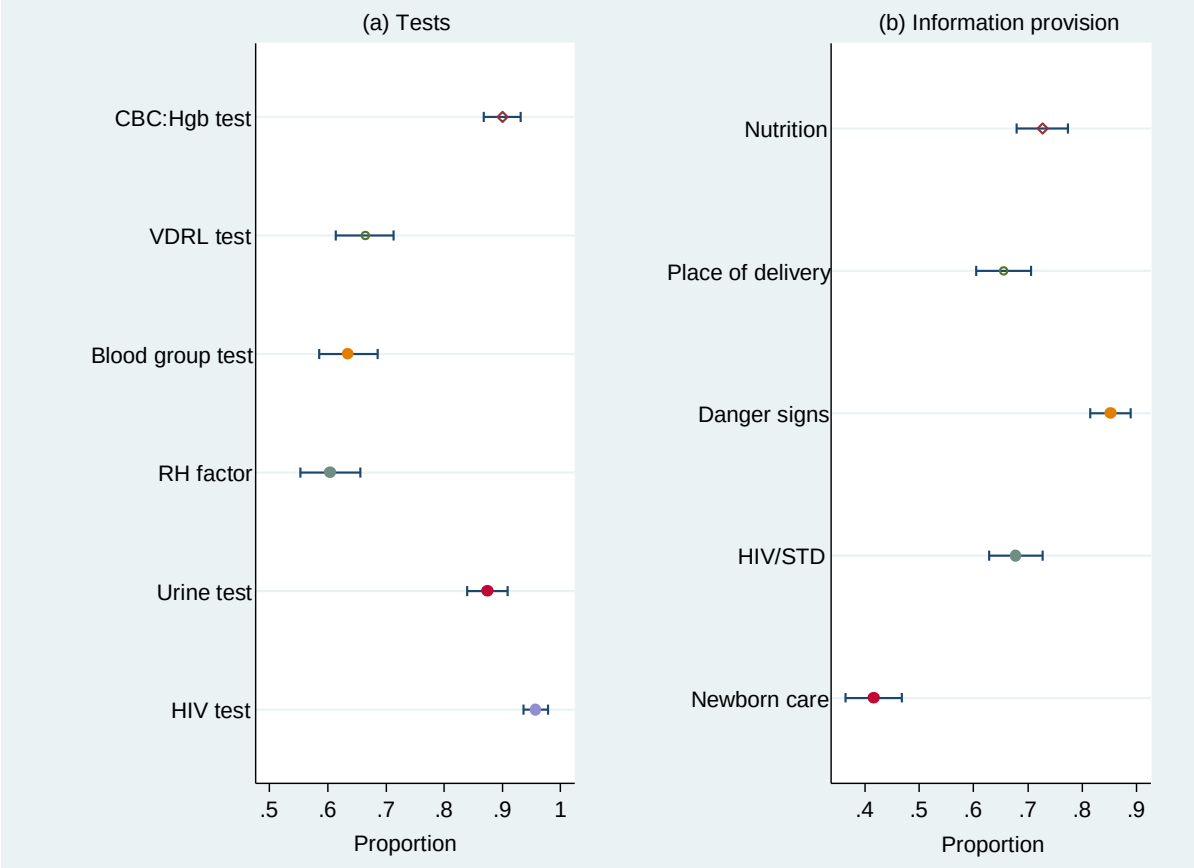

Figure 4: Laboratory investigations and information provision-confidence interval plot for proportion, Addis Ababa 2020

4.4. Output

An assessment of quality of ANC service was made using the popular Donabedian's three component model. The three components; namely, infrastructure, process and outcome. And the outcomes of this study were described below.

4.4.1. Quality of ANC service and Client satisfaction

Two indicators were used as an output measure; namely, satisfaction with the information provided to pregnant women and an overall assessment of the quality of antenatal care received. One in three of the pregnant women (33.3%) were satisfied with the information provided by the healthcare provider. Whereas, two in five (40.5%) of the respondents believed that they have received the care they were seeking in a manner they were expecting it. Thus, an overwhelming number of clients who were attending ANC at health facilities return back home dissatisfied with the service provided (Table 3).

Table 3: Satisfaction with and perceived quality of ANC service, Addis Ababa 2020

Characteristics	**Proportion**	**Std. Err.**	**95% CI**	
Satisfaction with information provided	.333	.025	.284	.383
Quality of service met one's expectation	.405	.026	.353	.456

4.5. Determinants of quality of ANC service utilization

The result of structural equation model suggested that infrastructure played a role in refining the process of delivering a higher quality ANC service. Infrastructure expanded the ability to conduct comprehensive physical examination, laboratory tests, and information provision to pregnant mothers. Moreover, it was observed that a fulfilled infrastructure is capable of improving quality service delivery of an institution by reducing the longer waiting time for service delivery (Table 4).

The result of generalized structural equation model also indicated that the background characteristics of women are not significant predictors of quality of ANC service delivery. It is an indication of the fact that there is no discrimination against pregnant women based on their background characteristics in service delivery. Longer waiting times (>1 hour) are detrimental to the delivery of a quality ANC service. From among the process variables, an accurate and adequate provision of information to pregnant women was found to have a positive contribution to the satisfaction of women with the ANC service (Table 4).

Table 4: Result of generalized structural equation model, Addis Ababa 2020

Variables	**Coef.**	**P-Values**	**[95%Conf.**	**Interval]**
Predictor variable is Structure				
Physical examination	0.756	0.000	0.538	0.973
Laboratory tests	0.382	0.024	0.049	0.715
Information provision	0.848	0.000	0.545	1.151
Waiting time	-1.310	0.000	-1.776	-0.844
Outcome variable is Quality of ANC				
Physical examination	-0.215	0.159	-0.514	0.084
Laboratory tests	-0.046	0.628	-0.232	0.140
Information provision	0.236	0.024	0.031	0.441
Waiting time[*Ref(<30 minute)*]				

Variables	Coef.	P-Values	[95%Conf.	Interval]
30-60 minute	-0.213	0.560	-0.932	0.505
>1 hr	-1.273	0.000	-1.988	-0.557
Age [*Ref(<25)*]				
25 – 34	-0.038	0.907	-0.667	0.592
35+	0.149	0.696	-0.599	0.898
Family size [*Ref(2-4)*]				
Alone	-0.460	0.211	-1.182	0.261
4+	-0.067	0.795	-0.571	0.438
Education of the mother[*Ref (None)*]				
Primary	0.310	0.282	-0.255	0.875
Secondary+	-0.049	0.867	-0.617	0.519
Parity [*Ref (Two)]*				
One	-0.190	0.572	-0.849	0.469
Three or more	-0.491	0.105	-1.084	0.103

There were 30 study participants whose ways of treatment and approaches were assessed by using the observational checklist. Among these, the majority were from St. Paul's Hospital Millennium Medical College (SPHMMC) while some were from RDDMH.

The observational checklist had contained 15 questions with 4 choices to answer (1 as very bad, 2 as bad, 3 as good and 4 as very good). The principal investigator would like to consider the first two (very bad and bad) alternatives as things were not done properly while the last two (good and very good) alternatives were considered as things were done properly.

As the result, among the study participants, many were not greeted and called by their names properly for an introduction. There were not enough availabilities of washing facilities (water, soap, towel) to the pregnant women in the study area where this study was conducted. The weeks of gestation, EDD & progress of pregnancy were predetermined by most healthcare professionals. For the majority of study participants, it was observed that their pulse rate, blood pressure and temperature were not taken properly. Skin examination, conjunctivae, legs for edema, redness, and varicose veins, thyroid, mouth, breast and lungs were not examined seriously by the healthcare providers for each and every pregnant woman.

There was no proper availability of washing facilities like water, soap and towel for the majority of study participants. Reviewing clinical records before starting the session and checking about previous pregnancy, number, and outcome were properly done to all of the study participants. Pulse rate, blood pressure and temperature were not taken properly for the majority of the study participants. Many of the study participants were not informed properly about their and their fetuses' health condition. Iron was prescribed to all pregnant mothers and lots of study participants were advised on how to feed breast, vaccinate their neonatal, and how to use family planning. Not some study participants were informed about the dangerousness of taking un-prescribed medications during pregnancy, advised for their family or partner on danger signs, preparation for emergency and place of birth.

In general, the study showed that the majority of the study participants didn't get quality ANC services.

4.6. Discussion

In this study, data were collected from a total of 351 respondents with the response rate of 94.1%. The overall satisfaction of the study participants was less than fifty percent 117(33.3%) with a (95% CI: 28.6%, 38.4%)of the ANC service they got. Generally, 142 (40.5%) with a (95% CI: 35.3%, 45.9%) of the ANC service they got of study participants perceived that they received ANC service in a quality that they wanted to get.

No studies conducted whose level of overall satisfaction of pregnant women for ANC service utilization were lower than this study. But there were many studies conducted in different countries that had greater level of satisfaction of ANC service utilization than the findings of this study. Study conducted in Nigeria shows that Positive Correlation between Client satisfaction and Health care utilization. Majority of pregnant women 83%, of service provided were satisfied by quality of ANC they received and they show willingness to recommend others and to use the facility for the subsequent pregnancy(Nwaeze *et al.*, 2013).

Study conducted in Pakistan revealed that the overall ranking of quality of clinical assessment done 72% was poor, 23%of clinical assessment was average and only 5% service provided with good quality. On health promotion and education counseling about 92 % of the client not get advices and 2% of mother gets standard advice depending on service delivery protocol practice, on treatment there was better practices for supplementation of Iron, anti-malaria drug and tetanus toxoid provided about 66% to 69% of clients. Overall only 44%of pregnant mother get good quality care and about 32% of mother not gets standard quality ANC service, from all pregnant women provided antenatal care only 50% of mothers were satisfied(Majrooh *et al.*, 2014).

A cross-sectional study conducted in Addis Ababa selected hospitals (Black lion specialized Hospital, Zewditu Memorial Hospital and Ghandi Memorial Hospital) whose overall satisfaction of study participants was90%,(Muzemil, 2014)the findings the studies done in south west of Ethiopia, 84.5%(Abate, Salgedo and Bayou, 2015), and northern part of Ethiopia, 52.3%(Ejigu, Woldie and Kifle, 2013a) all had shown that the greater overall satisfaction than this study. Possible reasons would for the lower satisfaction level in this

study could be due to subjective nature of the variables of the study; lack of standardized scales and tools for accurate measurement.

Despite high level of overall satisfaction in the participants, there was difference of satisfaction in different aspect of ANC services rendered to the study done in Bahirdar showed that more than half of clients were not get quality ANC .The reason they gave was absence of clean latrine and inadequate water supply, receiving incomplete information about ANC, inadequate waiting area and seats, absence of privacy, long waiting time and difficulty to understand the provider(Ejigu, Woldie and Kifle, 2013b).

A study conducted in Tigray has shown that an overall satisfaction of study participants was 83.9% with different satisfaction level(Fseha, 2019). A study conducted in Addis Ababa by Meseret Denu showed that an overall satisfaction of client was as high as 84.9%. The satisfaction of women with secondary educational level was lesser than illiterate pregnant women(Denu, 2017). Facility based cross-sectional study design combining both qualitative and quantitative method used to assess quality ANC service in Ambo Town Public health facilities showed that overall, 256 (89%) of clients reported as satisfied with services they had received(Nemera Yabo, 2015).

Most of the minimum required basic resources recommended by World Health Organization were available in the Higher 2 Health Center Jimma, Ethiopia(Abate, Salgedo and Bayou, 2015); however, there were incomplete sets of laboratory reagents and shortage of some drugs. In this study, only 34.3% of clients received prescriptions for iron supplementation and majority (94.6%) of the clients were satisfied with the accommodations of antenatal care service(Abate, Salgedo and Bayou, 2015). The overall quality of the service was judged as fair (69.5%)(Abate, Salgedo and Bayou, 2015).

A study conducted in Bishoftu town in public health facilities showed that overall satisfaction of client was as high as 84.9% while in our study it was 33.3%.

There were also studies conducted in line with this study that lied in between the ranges of confidence interval, 33.3%, CI: 28.6%, 38.4%) with the overall satisfaction of ANC service utilization of this study. Study conducted in south region at Sidama zone rural health center

showed that only 33% of mothers were satisfied. Studies conducted in Zambia showed that 50% of the facilities offer in adequate services (Kyei, Campbell and Gabrysch, 2012) while this study showed that 40.5% were assumed that they got quality service during the study period. The study done in Bahirdar showed that more than half of clients were not get quality ANC with the reasons absence of clean latrine and inadequate water supply, receiving incomplete information about ANC, inadequate waiting area and seats, absence of privacy, long waiting time and difficulty to understand the provider while in this study it was about 59.5%(Tadesse Berehe and Modibia, 2020).

A study conducted in Hossana Town's public health facilities showed that the overall magnitude of good quality of antenatal care service that was provided in the whole visit was 1230 (31.38%)(Tadesse Berehe and Modibia, 2020) whereas this study showed that 40.5% participants with CI: 35.3% to 45.9% assumed that they got quality ANC service.

A study conducted in St. Paul's Hospital Millennium Medical College by Wondimu Gudu showed that Maternal education, place of residence, family income, husband's approval, media exposure, pregnancy intention and previous bad obstetric history were the major individual factors affecting ANC service utilization(Gudu, 2018).The overall quality of prenatal care in the study conducted in Wogera District was 32.7% (95% CI: 28.1, 37.2). in this study four or more prenatal care visits (AOR = 2:3; 95% CI: 1.2, 4.7), high maternal education (AOR = 2:9; 95% CI: 1.03, 7.93), over USD 175.5 monthly household income (AOR = 2:8; 95% CI: 1.1, 7.8), and the availability of maternity waiting areas (AOR = 2.4; 95% CI: 1.2, 5.0) were positively associated with the quality of the care

A study conducted in Ambo town in public health institutions showed that privacy was one of the associated factors but not in our study. However, only 28(9.03%) of study participants had obtained information on how to recognize/danger sign of pregnancy which is associated with the quality of ANC service in our study too. A study conducted in Nigeria showed that only 4.6 % (95 % CI: 4.2–5.1) of women received good quality of ANC while nearly 1.0 % did not receive any of the components. whereas in this study is 40.5% of study participants perceived that they got quality ANC services.

4.7. Strength and Limitation

4.7.1. Strength of the study

The global and national burden called Novel COVID -19 was the greatest challenge during the data collection period of this study. However, the commitment shown by the principal investigator, data collectors and supervisors had made this paper of higher quality. More over the response rate of this study was high (94.1%).

4.8. Limitation of this study

There were many challenges to complete the data due to the COVID -19 as the respondents were greatly susceptible to it. As the result, there was limited time to complete the questionnaire.

CHAPTER 5: CONCLUSION AND RECOMMEDATION

5.1. Conclusion

This study showed that facilities which had good healthcare providers, supplies and infrastructures were more likely to give quality ANC service utilization to the study participants than those who didn't have likewise a study conducted in Bishoftu town in public health facilities. In this study, only one in three of the pregnant women were satisfied with the information provided by the healthcare provider. Whereas, two in five of the respondents believed that they have received the care they were seeking in a manner they were expecting it. Thus, an overwhelming number of clients who were attending ANC at health facilities return back home dissatisfied with the service provided

The rooms for the two hospitals where the ANC services were given had variations when observed using a checklist. Upgrading of the laboratory services in the health facilities is very important. Clients have variety of piece of information.

Inadequate quality of care and the loss of health professionals' motivation and user's trust in the health care system would vary the overall satisfaction of the clients. Thus, to deliver a quality ANC service, MOH, AACAHB, managements of the health facilities and other stakeholders had better give special attention to ANC service to all pregnant women. Strong leadership is mandatory for the enhancement of the quality service towards ANC service to all pregnant women. We suggest supportive supervision of health care providers geared towards building trust and mutual respect to protect maternal and infant health.

5.2. Recommendation

In consideration to factors that might limit quality ANC service, (measuring weight, information about danger sign, giving respectful service to clients, equipping the facilities), it is recommended that training for health workers, and heads of health facilities to give more attention to these factors. Moreover, massive education to all pregnant women who were attending the hospitals had better be given so as to increase their satisfaction level as well as to seek quality ANC service.

REFERENCES

Abate, T. M., Salgedo, W. B. and Bayou, N. B. (2015) "Evaluation of the Quality of Antenatal Care (ANC) Service at Higher 2 Health Center in Jimma, South West Ethiopia," *OALib*, 02(04), pp. 1–9. doi: 10.4236/oalib.1101398.

Alemayehu, A. (2017) "Quality of Antenatal Care Service in Public Health Facilities of Chencha District, Gamo Gofa Zone, Southern Ethiopia," *Women's Health*, 4(3), pp. 57–64. doi: 10.15406/mojwh.2017.04.00086.

CSA of Ethiopia (2016) "2016 Demographic and Health Survey Key Findings," *EDHS*, pp. 279–282. doi: 10.1109/ipfa.2004.1345625.

Denu, M. (2017) "Assessment of Quality of ANC Service and Its Association with Intention to Deliver in Public Health Facilities in Bishoftu Town, Oromia, Ethiopia," pp. 1–59.

Ejigu, T., Woldie, M. and Kifle, Y. (2013a) "Quality of antenatal care services at public health facilities of Bahir-Dar special zone, Northwest Ethiopia," *BMC Health Services Research*, 13(1), p. 1. doi: 10.1186/1472-6963-13-443.

Ejigu, T., Woldie, M. and Kifle, Y. (2013b) "Quality of antenatal care services at public health facilities of Bahir-Dar special zone, Northwest Ethiopia," *BMC Health Services Research*, 13(1). doi: 10.1186/1472-6963-13-443.

Fagbamigbe, A. F. and Idemudia, E. S. (2017) "Wealth and antenatal care utilization in Nigeria: Policy implications," *Health Care for Women International*, 38(1), pp. 17–37. doi: 10.1080/07399332.2016.1225743.

Fseha, B. (2019) "Assessment of Mothers Level of Satisfaction with Antenatal Care Services Provided at Alganesh Health Center Shire, North West Tigray, Ethiopia," *Biomedical Journal of Scientific & Technical Research*, 16(1), pp. 11798–11802. doi: 10.26717/bjstr.2019.16.002803.

Govender, T., Reddy, P. and Ghuman, S. (2018) "Obstetric outcomes and antenatal access among adolescent pregnancies in KwaZulu-Natal, South Africa," *South African Family*

Practice, 60(1), pp. 1–7. doi: 10.1080/20786190.2017.1333783.

Gudu, W. (2018) "Factors influencing antenatal care utilization in Ethiopia: A systematic review," *International Journal of Gynecology and Obstetrics*, 143(3), p. 244. Available at: https://www.embase.com/search/results?subaction=viewrecord&id=L624605913&from=export%0Ahttp://dx.doi.org/10.1002/ijgo.12582.

In, M. and Fulfillment, P. (2017) "College of Health Sciences School of Allied Health Sciences Departemet of Nursng and Midwifery Factors Associated With Timely First Antenatal Care Booking Among Pregnant Women Attending Antenatal Clinics in Asella Town Public Health Institutions , Arsi Zo," 1(1), p. 70.

Incorvia, C. (2015) "(12) United States Patent," 2(12).

Joshi, P. C. *et al.* (2014) "Prevalence of exclusive breastfeeding and associated factors among mothers in rural Bangladesh: A cross-sectional study," *International Breastfeeding Journal*, 9(1), pp. 1–8. doi: 10.1186/1746-4358-9-7.

Kaewkiattikun, K. (2017) *Effects of immediate postpartum contraceptive counseling on long-acting reversible contraceptive use in adolescents*, *Adolescent Health, Medicine and Therapeutics*. doi: 10.2147/ahmt.s148434.

Kim Streatfield, P. *et al.* (2014) "HIV/AIDS-related mortality in Africa and Asia: Evidence from INDEPTH health and demographic surveillance system sites," *Global Health Action*, 7(1). doi: 10.3402/gha.v7.25370.

Kumar Acharya, S. *et al.* (2018) *Nepal Health Sector Support Program, Ministry of Health and Population, DHS Further Analysis Reports No. 112*. Available at: http://www.newera.com.np/.

Kyei, N. N. A., Campbell, O. M. R. and Gabrysch, S. (2012) "The Influence of Distance and Level of Service Provision on Antenatal Care Use in Rural Zambia," *PLoS ONE*, 7(10). doi: 10.1371/journal.pone.0046475.

Majrooh, M. A. *et al.* (2014) "Coverage and quality of antenatal care provided at primary

health care facilities in the 'Punjab' province of 'Pakistan,'" *PLoS ONE*, 9(11). doi: 10.1371/journal.pone.0113390.

Mollon, D. L. (2015) "Patients ' Perception of Feeling Known by Their Nurses and the Nurse Practice Envrionment," *Theses and Dissertations at Digital USD*, 1(2), p. 178.

Muzemil, A. (2014) "Assessment of quality of antenatal care in selected hospitals in," pp. 1–59.

Nakamya, K. R. (2015) "Assessment Of Quality Of Antenatal Care In Kenyatta National Hospital-Kenya," *Obstetrics and Gynecology*, pp. 1–45.

Nemera Yabo, A. (2015) "Assessment of Quality of Antenatal Care (ANC) Service Provision Among Pregnant Women in Ambo Town Public Health Institution, Ambo, Ethiopia, 2013," *American Journal of Nursing Science*, 4(3), p. 57. doi: 10.11648/j.ajns.20150403.13.

Nwaeze, I. L. *et al.* (2013) "Nigeria 2017 Ibadan," *Annals of Ibadan Postgraduate Medicin*, 11(1), pp. 22–28.

Ousman, S. K. *et al.* (2019) "Social determinants of antenatal care service use in ethiopia: Changes over a 15-year span," *Frontiers in Public Health*, 7(JUN), pp. 1–10. doi: 10.3389/fpubh.2019.00161.

Said, N. and Musa, H. (2020) "An investigation of the relationship between Service Quality and Customer Satisfaction in Melaka Bookstore," 4(1), pp. 71–80.

Sakeaha, E. *et al.* (2017) "Determinants of attending antenatal care at least four times in rural Ghana: analysis of a cross-sectional survey," *Global Health Action*, 10(1). doi: 10.1080/16549716.2017.1291879.

Sidi, F. *et al.* (2012) "Data quality: A survey of data quality dimensions," *Proceedings - 2012 International Conference on Information Retrieval and Knowledge Management, CAMP'12*, (June 2014), pp. 300–304. doi: 10.1109/InfRKM.2012.6204995.

Singh, L. *et al.* (2019) "Measuring quality of antenatal care: a secondary analysis of national

survey data from India," *BJOG: An International Journal of Obstetrics and Gynaecology*, 126(S4), pp. 7–13. doi: 10.1111/1471-0528.15825.

Tadesse Berehe, T. and Modibia, L. M. (2020) "Assessment of Quality of Antenatal Care Services and Its Determinant Factors in Public Health Facilities of Hossana Town, Hadiya Zone, Southern Ethiopia: A Longitudinal Study," *Advances in Public Health*, 2020, pp. 1–11. doi: 10.1155/2020/5436324.

Titaley, C. R., Dibley, M. J. and Roberts, C. L. (2010) "Factors associated with underutilization of antenatal care services in Indonesia: Results of Indonesia Demographic and Health Survey 2002/2003 and 2007," *BMC Public Health*, 10. doi: 10.1186/1471-2458-10-485.

Villadsen, S. F. *et al.* (2014) "Antenatal care strengthening in Jimma, Ethiopia: A mixed-method needs assessment," *Journal of Environmental and Public Health*, 2014. doi: 10.1155/2014/945164.

villar, j., Bergsjo, P. (2002) "WHO_RHR_01.30.pdf," pp. 1–42.

Voyce, J. *et al.* (2015) "A Donabedian model of the quality of nursing care from nurses' perspectives in a Portuguese hospital: A pilot study," *Journal of Nursing Measurement*, 23(3), pp. 474–484. doi: 10.1891/1061-3749.23.3.474.

WHO (2016) "WHO recommendations on antenatal care (ANC) for a positive pregnancy experience," *number of ANC visits*, 7(2), pp. 1–16.

Williams, P. J. and Broughton Pipkin, F. (2011) "The genetics of pre-eclampsia and other hypertensive disorders of pregnancy," *Best Practice and Research: Clinical Obstetrics and Gynaecology*, 25(4), pp. 405–417. doi: 10.1016/j.bpobgyn.2011.02.007.

Wondimu, W., Girma, M. and Agedew, E. (2017) "Antenatal Care Utilization and Associated Factors among Reproductive Age Mother in Ari Woreda, South Omo Zone," *Bioenergetics Open access*, 06(01), pp. 1–7. doi: 10.4172/2161-038x.1000200.

Woyessa, A. H. and Ahmed, T. H. (2019) "Assessment of focused antenatal care utilization

and associated factors in Western Oromia, Nekemte, Ethiopia," *BMC Research Notes*, 12(1), pp. 1–7. doi: 10.1186/s13104-019-4311-3.

Zegeye, A. M., Bitew, B. D. and Koye, D. N. (2013) "Prevalence and determinants of early antenatal care visit among pregnant women attending antenatal care in Debre Berhan Health Institutions, Central Ethiopia.," *African journal of reproductive health*, 17(4), pp. 130–136.

Annex I: Information sheet on assessment of quality of ANC services public hospitals in Addis Ababa, Ethiopia.

Hello! My name is_____ I am from Addis Ababa University College of center for population study. This is a study to be conducted health research on assessment of quality of ANC services This is beneficial to identify areas of improvement in the quality of ANC services and highlighting the need for corrective actions. By doing this we will provide sufficient information for concerned bodies, 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 you 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 response was held in strict confidence. Your privacy will also be protected and nobody will know your answer. If you do not wish to participate, it will not affect the services you receive at the facility now or in the future. I also request you to answer it frankly because your answers are like one important piece of brick in the whole research and determine the outcome of this study. Thank you very much for your willingness to listen to me. In case, if you have any question you can ask:

Are you voluntary to respond to the questions?

Yes; ----proceed with the interview

No; ---- thank her and End.

Date & Signature: _____

Name of supervisor: _____

Annex II. Concept Form: English Version

Instruction to the data collector

Please try to explain all what the respondents need to know about any other study-related issues. And, make sure that they understand it clearly. Then negotiate them to put their signs not their names if they are willing to participate in the study. Try to consider respondents who are willing to participate in the study but do not want to sign. If not, thank them and look for others. I (*the data collector*) have informed all the necessary piece of information about this study to each participant and signed to keep the rights and obligations of the study.

Name of data collector: ……Sign. ……Date: ……

Instruction to participants

I have been given information about "Quality ANC Service Utilization and Associated Factors among pregnant Women in Public Hospitals in Addis Ababa, Ethiopia, 2020" and discussed the research project with the data collector who is represented to conduct this research as part of a Master of Public Health Degree supervised by Associate Professor Tariku Dejene at the AAU College of Development Studies Center for Population Studies. I have been advised that there would not any known potential risks associated with this research, and I have had an opportunity to ask the data collector any questions I may have about the research and my participation. I understand that my participation in this research is entirely voluntary; I am free to refuse or to participate in the study. And, I am free to withdraw from the research at any time. My refusal to participate or withdrawal of consent will not affect my treatment in any way. If I have any enquiries about the research, I can contact [Meseret Dessalegn (PI), Associate Professor Tariku Dejene (Advisor) and/or the data collector] of this study. If I have any concerns or complaints regarding the way the research is or has been conducted, I can contact the Ethical Committee of AAU College of Development Studies Center for Population Studies. I understand that the data collected from my participation will be used for the study purpose only, and I consent for it to be used in that manner. By signing below, I am indicating my consent to participate in the study. Sign ..... Date ...../...../2020

ANNEX III. QUESTIONNAIRE FORM: ENGLISH VERSION

This questionnaire will be administered to pregnant women among the selected public high schools in Addis Ababa, Ethiopia.

Facility and Client's Background Information

Name of Hospital.....

Date of data collection.....

Name of data collector..... Signature.....

Code of participant:

S.No	Questions	Responses	Remarks
Part I: Socio demographic and economic characteristics of participants			
	Age (In years)	……	
	Current Marital status	1. Never Married 2. Cohabit 3. Married 4. Divorce 5. Widowed	
	Number of births	1. One 2. Two 3.three	:

		4.four or more	
	Monthly income (in birr)	…… .	
	Educational status	1. Unable to read & write 2. High school completed 3. Diploma 4. Degree 5. Masters and above	
	Your occupational status	1. Gov't employed 2. Private employed 3. Merchant 4. House wife 5. Other (specify)	
	Family size	. ……	
Part II. Questions related to obstetric History towards Quality ANC service			
	Complications in prior pregnancy	1. Yes 2. No	
	Received ANC in prior pregnancy	1. Yes 2. No	
.	Timing of first antenatal visit	1. First trimester	

		2. Second trimester 3. Third Trimester	
Part III. Variables in Service provision in related to ANC			
Questions 11-15 are to know whether the provider performs general examination or not			
.	Weight measured	1. Yes 2. No	
.	Pallor evaluated	1. Yes 2. No	
.	BP measurement	1. Yes 2. No	
.	Edema evaluates	1. Yes 2. No	
.	Ultrasound	1. Yes 2. No	
Questions 15-20 are to know about laboratory investigation			
.	CBC (Specially Hgb.) test	1. Yes	

		2. No	
.	VDRL	1. Yes 2. No	
.	Blood group	1. Yes 2. No	
.	RH factor	1. Yes 2. No	
.	Urine test	1. Yes 2. No	
.	HIV test	1. Yes 2. No	
Questions 22-25 are to know whether ANC related healthcare service is provided or not			
.	Iron supplementation	1. Yes 2. No	
.	Tetanus toxoid immunization	1. Yes 2. No	

.	Treatment of syphilis	1. Yes 2. No	
.	Do you have an appointment	1. Yes 2. No	
Part IV. Questions related to healthcare providers' approach towards ANC			
.	Was there any other person than the care provider?	1. Yes 2. No	If "No", skip to Q#28
.	How many	…….	
.	How long it takes to be visited by healthcare providers	…….	
.	Is there any time that you turn back to your home without having a check up?	1. Yes 2. No	
.	Did the health care provider treat you respectfully?	1. Yes 2. No	
Questions 31-41 are to know whether you get advice /information or not			

.	Nutrition	1. Yes 2. No	
.	Information about where to delivery	1. Yes 2. No	
.	Danger Sign	1. Yes 2. No	
.	HIV/STD	1. Yes 2. No	
.	Information about new born care	1. Yes 2. No	
.	Do you satisfy with the advice of healthcare providers?	1. Yes 2. No	If “No”, skip to Q#38
.	How much do you satisfy with advices of healthcare providers?	1. Very dissatisfied 2. dissatisfied 3. satisfied 4. very satisfied	

.	Where do you want to give birth?	1. Here 2. Other health facility 3. Home	If "2" OR "3", skip to Q#40
.	Why you choose to give a birth in this organization?	1. It is near to my house 2. Health care providers provides good care 3. Better medical equipment's are Available 4. I usually give birth in this specific place 5. other	
.	To get a better antenatal care which of the followings need to be improved?	1. Health care provider 2. Supplies 3. Infrastructures 4. Service delivery 5. Others	
.	In general, do you think that you received ANC service in a quality that you want to get?	1. Yes 2. No	D.V

OBSERVATIONAL CHECKLIST FOR ANC SERVICE

(1 = very bad, 2 = bad, 3 = good and 4 = very good)

S.No	Indicators	1	2	3	4
	A client Greeted and called by her name and introduce her				
	Check for the availability of washing facilities (water, soap, towel)				
	Reviews clinic record before starting the session and check about previous pregnancy, number, and outcome				
	Determines weeks of gestation, EDD & progress of pregnancy				
	Take pulse rate, blood pressure and temperature				
	Examine skin, conjunctivae, legs for edema, redness, and varicose veins, thyroid, mouth, breast and lungs				
	Palpates uterus and perform maneuvers to detect fetal position and situation and measure uterine height and listens to the fetal heart rate				
	A mother was informed about her and fetus's health condition				
	A mother was informed about any complication and management				

.	A mother was informed about the danger sign (headache,vaginal bleeding, passage of liquor) Counsel on nutrition need				
.	A mother was advised on personal hygiene, rest and general care				
.	A mother was informed about dangerous of unprescribed medicine during pregnancy				
.	Iron was Prescribed to a mother				
.	A mother was advised on how to breast feeding ,neonatal vaccination ,family planning				
.	A mother was advised for her family or partner on danger signs, preparation for emergency and place of birth				

Thank you for sacrificing your precious time and filling out the questionnaire.

ANNEX IV. Information sheet: Amharic version

እኔ---------- እባላለሁ፡፡የድህረ-ምረቃተመራቂተማሪስሆን፤በቅድመወሊድክትትልአገልግሎትጥራትላይጥናትናምርምርእያካሄድኩኝሲሆንላማውምየቅድመ-ወሊድክትትልንጥራትለማሻሻልነው፡፡ስለሆነምከእርስዎየምናገኘውመልስትልቅስተዋጽዖስላለውበጥናቱላይእንዲሳተፉበትህትናእጠይቃችኃለሁ፡፡ጥናቱላይአለመሳተፍወይምማንኛዉምሰዓትማቋረጥይችላሉ፡፡ለዚህምከሚያገኙትእንክብካቤምንምየማይቀንስመሆኑንእየገለጽኩለጥናቱየሚስጡትሃሳብሚስጥራዊነቱየተጠበቀመሆኑንአረጋግጣለሁኝ፡፡በተጨማሪምጥያቄወይምአስተያየትካለዎትቃለ-መጠይቅአድራጊዉን፣ሜዲካልዳይረክተሩን፣ወይምየጽንስእናማህጸንክፍልድረስመጠየቅየቻላል፡፡በጥናቱላይለመሳተፍፈቃደኛነዎት?

1. **አዎ** □
2. **አይደለሁም** □

ANNEX V. Consent form: Amharic version

ተሳትፎዎበእርስዎፍፁምፈቃደኝነትላይየተመሰረተሥለሆነበፈለጉትጊዜማቋረጥይችላሉ፡፡የሚሰበ ሰበውመረጃበጥናቱጊዜናከጥናቱምበኋላምስጢራዊነቱየተጠበቀመሆኑንላረጋገጥልዎእወዳለሁ፡፡የ አንድግለሰብመረጃበፍፁምተመዝግቦአይተላፍም፡፡በጥናቱየመሳተፍምሆነያለመሳተፍመብትአለዎ ት፡፡ነገርግንየእርስዎዕውነተኛመረጃለጥናቱከፍተኛየሆነአዎንታዊአስተዋፅዖአለው፡፡ስለሆነምእባክ ዎትንጥቂትደቂቃዎችንወስደውከዚህበታችያለውንመጠይቅበመሙላትይተባበሩን፡፡

በዚህጥናትለመሳተፍፈቃደኛነዎት?

☐ **አዎለመሳተፍፈቃደኛነኝ**

☐ **ለመሳተፍፈቃደኛአይደለሁም (መልስዎ “አይደለሁም” ከሆነአመሰግናለሁያቋርጡ)**

መልስዎ “አዎ” ከሆነ እባክዎ ወደ ቀጣዩ ገፅ ይሂዱ፡፡

ANNEX VI. Questionnaire form: Amharic Version

ይህ መጠይቅ በአዲስ አበባ፣ ኢትዮጵያ ውስጥ ከተመረጡ የህዝብ ሆስፒታሎች መካከል ለነፍሰ ጡር ሴቶች ይሰጣል፡፡

የመገልገያእናየደንበኛዳራመረጃ ……

የሆስፒታሉስም ……

የመረጃመሰብሰቢያቀን ……

የመረጃሰብሳቢውስም …… ፊርማ ……

የተሳታፊኮድ ……..

ተ.ቁ	መጠይቆች	ምላሾች	ምርመራ
ክፍል 1: - የተሳታፊዎች የሶሺዮ-ዲሞግራፊክስና ሕዝባዊ እና ኢኮኖሚያዊ ባህርያት			
	ዕድሜ (በዓመት)	……	
	የጋብቻሁኔታ	1. በጭራሽአላገባም 2. አብሮመኖር 3. ያገባች 4. ፍቺ 5. ባሏየሞተ	
	የመውለድብዛት	1. አንድ 2. ሁለት 3. ሦስት	:

		4. አራትወይምከዚያበላይ	
	ወርሃዊገቢ (በብር)	…… .	
	የትምህርትሁኔታ	1. ዲፕሎማአለኝ 2. ዲግሪአለኝ 3. ሁለተኛዲግሪእናከዛበላይ	
	የሥራሁኔታዎ	1. የመንግስትተቀጣሪ 2. በግልተቀጥሮየሚሠራ 3. ነጋዴ 4. የቤትእመቤት 5. 5. ሌላ (ይግለጹ)	
	የቤተሰብብዛት	. ……	
ክፍል II ከወሊድ ጋር የተዛመዱ ጥያቄዎች ከወሊድ በፊት አገልግሎት የጥራት ሁኔታ			
	ከእርግዝናአስቀድሞየጤናችግሮችነበሩ	1. አዎ 2. የለም	
	በእርግዝናወቅትየቅድመ-ወሊድአገልግሎትአግኝተዋልን	1. አዎ 2. የለም	
.	የመጀመሪያየወሊድጉብኝትጊዜ	1. የመጀመሪያክፍለጊዜ 2. ሁለተኛወር 3. ሦስተኛውመጨረሻ	

ክፍል III. ከወሊድበፊትአገልግሎትጋርበተያያዘመጠይቆች			
ከ11-15 ጥያቄዎች የጤና ባለሙያዎች አጠቃላይ ምርመራ ስለማካሄድ አለማካሄዳቸው			
.	ክብደትይለካሉ	1. አዎ 2. የለም	
.	የመገርጣትሁኔታ	1. አዎ 2. የለም	
.	የደምግፊትስለመለካት	1. አዎ 2. የለም	
.	የእብጠትመታየት	1. አዎ 2. የለም	
.	አልትራሳውንድመታየት	1. አዎ 2. የለም	
ከ15-20 ያሉ ጥያቄዎች ስለላቦራቶሪ ምርመራ ለማወቅ ነው			
.	Hgb (የደምማነስ) ምርመራ	1. አዎ 2. የለም	
.	የቂጥኝምርመራ	1. አዎ 2. የለም	
.	የደምዓይነት	1. አዎ 2. የለም	
.	አር.ኤችፋክተር	1. አዎ 2. የለም	

.	የሽንትምርመራ	1. አዎ 2. የለም	
.	የኤች.አይ.ቪምርመራ	1. አዎ 2. የለም	
ከ 22-25 ያሉ ጥያቄዎች ከወሊድ በፊት አገልግሎት ጋር የተዛመደ የጤና አገልግሎቶች ሰለመሰጠት አለመሰጠታቸው ለማወቅነው			
.	የብረትማሟያ/ማግኘት	1. አዎ 2. የለም	
.	ቴታነስቶክሲድክትባት	1. አዎ 2. የለም	
.	የቂጥኝሕክምና	1. አዎ 2. የለም	
.	ቀጠሮአለዎት	1. አዎ 2. የለም	
ክፍል 4. ከወሊድ በፊት አገልግሎት *ጋር የተዛመደ* የጤና ባለሙያዎች አቀራረብ *ጋር* የሚዛመዱ ጥያቄዎች			
.	ከጤናባለሙያው/ዋውቺሌላሰውአለ?	1. አዎ 2. የለም	መልስዎ “የለም” ከሆነወደጥያቄ 28 ይዝለሉ
.	ምንያህል	…….	

.	በሕክምናአቅራቢዎችለመጎብኘትምን ያህልጊዜይወስዳል?	.....	
.	ምርመራሳያደርጉወደቤትዎየሚመለሱበትጊዜአለ?	1. አዎ 2. የለም	
.	የጤናአጠባበቅሰጪውበአክብሮትይይዝዎታልን?	1. አዎ 2. የለም	
ከ 31 - 41 ያሉጥያቄዎችምክር /መረጃ/ ማግኘትወይምአለማግኘትዎንለማወቅነው			
.	የተመጣጠነምግብ	1. አዎ 2. የለም	
.	የትመውለድእንዳለብዎትመረጃ	1. አዎ 2. የለም	
.	የአደጋምልክት	1. አዎ 2. የለም	
.	ኤች.አይ.ቪ / ወሲባዊተላላፊበሽታ	1. አዎ 2. የለም	
.	ስለአዲስየተወለደእንክብካቤመረጃ	1. አዎ 2. የለም	
.	በጤናእንክብካቤአቅራቢዎችምክርረክተዋል?	1. አዎ 2. የለም	መልስዎ “የለም” ከሆነወደጥያቄ 38 ይዝለሉ
.	የጤናእንክብካቤአቅራቢዎችምክርምን	1. በጣምአልረካሁም 2. አልረካሁም 3. ረክቻለሁ	

	ያህልረክተዋል?	4. በጣምረክቻለሁ	
.	የትመውለድይፈልጋሉ?	1. እዚህ 2. ሌላየጤናተቋም 3. ቤት	መልስዎ “2” ወይንም “3” ከሆነወደጥያቄ 40 ይዝለሉ
.	በዚህድርጅትውስጥለመውለድየመረጡትለምንድነው?	1. ለቤቱቅርብስለሆነ 2. የጤናባለሙያዎችጥሩእንክብካቤስለሚሰጡ 3. የተሻሉየሕክምናመሣሪያዎችስላሉት 4. ብዙውንጊዜበዚህየተወሰነቦታስለምወልድ 5. ሌላ	
.	የተሻለከወሊድበፊትአገልግሎትለማግኘትከሚከተሉትውስጥየትኛውንቢሻሻልይመረጣሉ?	1. የጤናእንክብካቤአቅራቢ 2. አቅርቦቶች 3. መሰረተልማት 4. የአገልግሎትአሰጣጥ 5. ሌሎች	
.	በአጠቃላይ፣እርስዎማግኘትበሚፈልጉትጥራትደረጃልክከወሊድበፊትአገልግሎትያገኙይመስልዎታልን?	1. አዎ 2. የለም	D.V

ከወሊድ በፊት ለሚሰጥ አገልግሎት የአፈፃፀም ምልከታ መስፈርት

(1 = በጣም መጥፎ፣ 2 = መጥፎ፣ 3 = ጥሩ እና 4 = በጣም ጥሩ)

ተ.ቁ	ጠቋሚዎች	1	2	3	4

	ተገልጋይዋን ሰላምታ ሰጥታ በስም ጠርታታለች				
	ለመታጠቢያ ተቋማት (ውሃ፣ ሳሙና፣ፎጣ) መኖሩን ያረጋግጡ፡፡				
	የዕለቱን ስራ ከመጀመሩ በፊት ክሊኒክ መዝገብን ይገመግማል (ስለቀድሞው እርግዝና፣ ቁጥር እና ውጤቱን) ሰለመገምገሚ				
	የእርግዝና ጊዜ ሳምንታትን፣ ሊወልዱ የሚችሉበትን ቀን ይወስናል፡፡				
	የልብምትን፣ የደም ግፊት እና የሙቀት መጠንን መለካት				
	ቆዳን፣ ዐይን ህመም፣እግር እብጠት፣መቅላትና የእግር ላይ ደም መላሽ ቧንቧዎች፣ታይሮይድ፣አፍን፣ጡትእናሳንባዎችንመመርመር				
	የፅንስ ቦታን እና ሁኔታን ለመለየት እና የማህፀን ቁመትን ለመለካት እና የፅንሱን የልብ ምት ለማዳመጥ የማሕፀን እና የእርግዝና እንቅስቃሴዎችን መከታተል				
	አንዲት እናት ስለ እሷ እና ስለፅንሱ የጤና ሁኔታ ይነገራታል				
	ስለማንኛውም ችግር እና አስተዳደር አንዲት እናት ይነገራታል				
.	አንዲት እናት ስለሚያግጥማት አደጋ ምልክት (ራስ ምታት፣የሴት ብልት የደም መፍሰስ፣የፈሳሽ መታየት) እና ስለአመጋገብ ፍላጎት ምክር መሰጠቷ				
.	አንዲት ሴት በግል ንፅህና፣ ዕረፍትና አጠቃላይ እንክብካቤ ላይ ተመክራለች				
.	አንዲት እናት በእርግዝና ወቅት ያልታዘዘ መድኃኒት በተመለከተ አደገኛ እንደሆነ ተነገራት				

.	ብረት /Iron Folic/ ለእናት ስለመታዘዙ				
.	ጡትበማጥባት፣በወሊድጊዜክትባት፣የቤተሰብዕቅድንበተመለከተአንዲትእናትተመክራለች				
.	አንዲትእናትስለአደገኛምልክቶች፣ስለድንገተኛአደጋጊዜእናስለምትወልድበትቦታዙሪያለቤተሰቧወይምለባልደረባዋመመከሯ				

ስለሁሉም ነገርከልብእናመሰግናን፡፡