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Antenatal Care Services Satisfaction and Associated Factors among Pregnant Women Attending Antenatal Care at Public Health Facilities in Harari Region, Eastern Ethiopia

A Thesis Submitted to the College of Health and Medical Sciences, School of Graduate Studies, Haramaya University

In Partial Fulfillment of the Requirements for the Degree of Master of Public Health in Health Service Management

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I hereby certify that I have read and evaluate this Thesis entitled "Antenatal Care services satisfaction and associated factors among pregnant women attending Antenatal care at Public Health facilities in Harari Region, Eastern Ethiopia" prepared under my guidance by Simon Birhanu Yohannes. I recommend that it be submitted as fulfilling the thesis requirement.

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As a member of the Board of Examiners of the MPH Thesis Open Defense Examination, I certify that I have read and evaluated the Thesis prepared by Simon Birhanu Yohannes and examined the candidate. I recommend that the thesis be accepted as fulfilling the Thesis requirement for the degree of Master of Public Health in Health Service Management.

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ABBREVIATIONS AND ACRONYMS

ANC	Antenatal Care
AOR	Adjusted Odds Ratio
BMC	Bio Medical Center
CDC	Center for Disease Control and Prevention
COR	Crude Odds Ratio
CSA	Central Statistical Agency
DHS	Demographic and Health Survey
EDHS	Ethiopian Demographic and Health Survey
ETB	Ethiopian Birr
FGD	Focus Group Discussion
HC	Health Center
HEWs	Health Extension Workers
HMIS	Health Management Information System
IHRERC	Institutional Health Research Ethics Review Committee
IT	Information Technology
Mr.	Mister
PNC	Postnatal Care
SGS	School of Graduate Studies
SPSS	Statistical Package for Social Sciences
UNFPA	United Nation Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

ABSTRACT

Introduction: Antenatal care can help women prepare for delivery and understand warning signs during pregnancy and childbirth. World Health Organization recommends a minimum of four antenatal visits. In our country Ethiopia proportion of pregnant women who received the recommended minimum of four or more antenatal care visit was (32%). Client satisfaction is playing an important role in quality of antenatal care. Evaluating to what extent patients are satisfied with health services is clinically relevant, as satisfied patients are more likely to comply with treatment, take an active role in their own care, to continue using medical care services and recommend center‘s services to others. However, there is limited evidence regarding ANC services satisfaction among pregnant women in our country Ethiopia including the study setting.

Objective: The aim of this study was to assess ANC services satisfaction and associated factors among pregnant women attending Antenatal care at Public Health facilities in Harari Region, Eastern Ethiopia.

Materials and Methods: This study was conducted from February 01 to February 30/2017. Institution based cross-sectional study design supplemented by qualitative inquiry with phenomenological study design was used among randomly selected 531 pregnant women. For quantitative part of the study sample size was calculated and proportionally allocated to each health facility included in the study and for the qualitative part of the study four FGDs were conducted with 6-10 pregnant women in each FGD by using convenience sampling technique to select the pregnant women for FGD. Quantitative data were collected using interviewer administered pretested structured questionnaire. Odds ratio along with 95% confidence interval were estimated to measure the strength of association and identify factors associated with an outcome variable of interest. Level of statistical significance was declared at p- value less than 0.05. Qualitative data were gathered through focus group discussion and analyzed using Narrative analysis method to support the quantitative result.

Result: The findings of this study revealed that the proportion of women satisfied with ANC service was 70.3% (95% CI: 66.4%, 74.3%). Greater proportion of satisfaction was recorded on interpersonal skill 78.3% but 39% of the respondents were unsatisfied with technical aspect of antenatal care. Pregnant women who utilize service in Hospital were 2.44 times [AOR = 2.44, 95% CI: 1.50, 3.98] more likely to be satisfied with ANC services than those who received in health center , those who had no formal education were 2.53 times [AOR = 2.53 95% CI: 1.52, 4.20] and those who attended Primary education 2.17 times [(AOR = 2.17, 95% CI: 1.17, 4.04] more likely to be satisfied with ANC services than who had secondary and above education, those who had a repeated ANC visit were 4.62 times [AOR = 4.62, 95% CI: 2.98, 7.17] more likely to be satisfied with ANC services than who had first visit/new, those who begun ANC within the first trimester were 1.74 times [AOR = 1.74, 95% CI: 1.12, 2.71] more likely to be satisfied with ANC services than who begun ANC after first trimester, those who had no history of stillbirth were 2.52 times [AOR = 2.52, 95% CI: 1.37, 4.65] more likely to be satisfied with ANC services than who had history of stillbirth, and those who waited for no more than half an hour were 2.31 times [AOR = 2.31 95% CI: 1.28, 4.16] more likely to be satisfied with ANC services than who waited for more than 30 minute in the health facility to get service.

Conclusion: About 70 % of pregnant women were satisfied with the antenatal care they received. Moreover, type of health facility, educational status of pregnant women, frequency of ANC, initiation time of ANC, waiting time to get service and history of stillbirth were identified as significant factors of ANC service satisfaction. Therefore, the hospital administration and health professionals need to offer client oriented service to increase their satisfaction.

Key words: Antenatal care, pregnant women, Satisfaction

1. INTRODUCTION

1.1. Background

Safe Motherhood begins before conception with good nutrition and a healthy lifestyle. It continues with appropriate prenatal care and preventing problems if they arise. The ideal result is a full-term pregnancy without unnecessary interventions, the delivery of a healthy baby, and a healthy postpartum period in a positive environment that supports the physical and emotional needs of the mother, baby, and family. Among the various pillars of Safe Motherhood, antenatal care remains one of the interventions that have the potential to significantly reduce maternal morbidity and mortality when properly conducted (CDC, 2016; WHO, 1994).

During pregnancy sometimes it can be difficult for a woman to determine which symptoms are normal and which are not. Problems during pregnancy may include physical and mental conditions that affect the health of the mother or the baby. These problems can be caused by or can be made worse by being pregnant. Many problems are mild and do not progress; however, when they do, they may harm the mother or her baby (CDC, 2016).

On a global level, the quality of health care services is featured in the Sustainable Development Goals, the successors of the Millennium Development Goals. Many countries are actively exploring how to ensure or raise the quality of care, with policies ranging from supporting access to private sector providers that may offer higher quality to providing financial rewards to providers for achieving quality targets. Evaluating to what extent patients are satisfied with health services is clinically relevant, as satisfied patients are more likely to comply with treatment, take an active role in their own care, to continue using medical care services and recommend center‘s services to others (Duysburgh *et al.,* 2014; Kohan *et al.,* 2003).

The client or customer's satisfaction is a multidimensional and broader concept taking into account the individual perceptions, expectations and experience together. Satisfaction is a subjective feeling in which a person compares his/her own assessment (i.e. experience) of available health care with his/her expectations and it is defined as “health care recipient's reaction to salient aspects of his or her experience of a service”. (Maliha Naseer1 et al., 2012, Bleich SN et al., 2009, Hills R and S., 2007).

1.2 Statement of the problem

The International Conference on Population and Development and the Millennium Development Goals (MDGs) called for achieving a 75 per cent reduction in maternal mortality between 1990 and 2015 and it remains an unfinished agenda of the MDGs and also a humanitarian issue and a development priority. The new sustainable development goal (SDG), the successor of MDGs, target for bringing the maternal mortality down to 70 deaths per 100,000 live births by the year 2030 (UNFPA, 2015).

The risk of a woman in a developing country dying from a maternal-related cause during her lifetime is about 33 times higher compared to a woman living in a developed country. Developing countries has almost 99% of the maternal death worldwide, more than half of these death occur in sub-Saharan Africa, with maternal mortality ratio of 546 per 100,000 live birth while it is 12 per 100,000 livebirth in the developed one. In Ethiopia the maternal mortality ratio was 412 per 100,000 live births according to 2016 Ethiopian Demographic Health Survey (WHO, 2015a; Leontine Alkema et al., 2015; CSA and ICF, 2016).

In 2002 the WHO released new research-based guidelines for Focused Antenatal Care (FANC), applicable also in low-income countries (WHO, 2002). The World Health Organization also 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 (WHO, 2015a).

Globally from 2007 to 2014 the proportion of pregnant women receiving antenatal care at least once was almost 85%, but only 61% of them received the recommended minimum of four or more antenatal care visit and the situation also worsens in developing countries such as sub-Saharan Africa (49%), south Asia (34%). In the case of Ethiopia proportion of pregnant women receiving antenatal care at least once was (62%) but pregnant women who received the recommended minimum of four or more antenatal care visit was (32%) (WHO, 2015a; CSA and ICF, 2016).

One of the important problems which are continuously faced these days is the lack of good quality antenatal care and gaining client satisfaction, which are important responsibilities of the higher authorities and staffs in the health care system. Client satisfaction is a reflection of the patient's judgment of different domains of health care, including technical, interpersonal, and organizational aspects. International literature suggests that satisfaction with different aspects of received antenatal care improves health outcomes, continuity of care, adherence to treatment, and the relationship with the provider (Kohan *et al.,* 2003; Christiaens and Bracke, 2007; Matejić B *et al.,* 2014;Haines *et al.,* 2013).

The role that quality of care plays in the decision to seek care is related to people's own assessment of service delivery, which largely depends on their own experiences with the health system and those of people they know. The two mechanisms through which quality of care affects the decision to seek care are satisfaction or dissatisfaction with the outcome and satisfaction or dissatisfaction with the service received. The World Health Organization recommends monitoring and evaluation of maternal satisfaction with public health care services, in order to improve the quality and efficiency of health care during pregnancy (Kloos, 1987; WHO, 1996; Bleich SN *et al.,* 2009).

Studies revealled that Spenting enough time during consultation, gaining explanation about the procedure before had it, privacy during examination, sex of service provider, waiting time to get service, absence of history of still birth, having intended pregnancy, and monthly average income of the pregnat women affects clients satisfaction with antenatal care services (Chemir *et al.,* 2014; Ejigu *et al.,* 2013).

Although client satisfaction is essential for further improvement of quality of antenatal care and to provide uniform health care services for pregnant women, little is known about the ANC services satisfaction and associated factors among pregnant women in Ethiopia in general and in the study area (Harari region) in particular. Therefore, this study aimed at assessing antenatal care services satisfaction and associated factors among pregnant women.

1.3. Significance of the Study

The result of this study will benefit the Harari Regional Health Office and Public Health facilities found in Harari region to work in improving the quality of health services especially of antenatal care service since client satisfaction is the major indicator of quality (outcome quality) of service therefore the findings of this study will be used as a baseline evidence in planning to improve quality and coverage of Antenatal care service, by doing so it will further contribute to the reduction of maternal and infant mortality which are the major agenda of our country at large.

The results will also help other stakeholders including non-governmental organizations(NGOs) working on this area (if any) to understand the pregnant women satisfaction with ANC services and factors associated with it and to plan improvement strategy to have quality service that will satisfy the service users.

In addition, findings of this study will provide the basic framework for future studies in assessing and improving the Antenatal care service quality and client satisfaction with the service they received.

1.4. Objectives of the Study

1.4.1. General Objective

- To assess Antenatal Care Services satisfaction and associated factors among pregnant women attending Antenatal care at Public Health facilities in Harari Region, Eastern Ethiopia from February 01 to February 30/2017**.**

1.4.2. Specific Objectives

- To assess ANC Service satisfaction among pregnant women attending Antenatal care in public health facilities of Harari Region
- To identify factors associated with ANC service satisfaction among pregnant women attending ANC in public health facilities of Harari Region

2. LITERATURE REVIEW

2.1 Antenatal Care services satisfaction among pregnant women

Antenatal Care service was overall found to be satisfactory in less than half (46%) of pregnant women in Pakistan as to a cross sectional study conducted there in 2010. However it was found to be satisfactory in majority (80%), three-fourth (75.6%) and 59% of pregnant women in Sweden in 2005, Malaysia in 2014 and Oman in 2005 respectively and also it was satisfactory in nearly three fourth (74.6%) of pregnant women in Uganda in 2009 (Hildingsson and Rådestad, 2005; Rahman *et al.,* 2016; Majrooh *et al.,* 2014; Tetui *et al.,* 2012; Mohammed and Khandekar, 2008).

In Ethiopia 60.4% and 52.3% of pregnant women were satisfied with the antenatal care services they received according to studies done in Jimma in 2013 and Bahir Dar in 2010 respectively (Chemir *et al.,* 2014; Ejigu *et al.,* 2013).

Cross sectional study conducted in Jimma in 2013 shows that 80.7% of the respondents were satisfied with interpersonal skill, 62.2% of pregnant women were satisfied with organization of health care but 67.1% and 49.9% of the pregnant women were unsatisfied with physical environment and technical quality respectively (Chemir *et al.,* 2014).

The politeness of the health staff and the warm reception mothers received in the antenatal care unit were the most satisfying parts of the services for more than half of the pregnant women in Oman in 2005 (Mohammed and Khandekar, 2008). Service Provider's attitude and the examination room privacy satisfies 83.3% and 88% of the pregnant women according to two different cross-sectional studies conducted in 2010 and 2012 in Egypt and it also satisfies 87.6% and 93.8% of the pregnant women in Uganda in 2009 and Nigeria in 2006 respectively (Rahman El Gammal, 2014; Tetui *et al.,* 2012; Montasser *et al.,* 2012; Oladapo *et al.,* 2008). Cross sectional studies conducted in Bahir Dar special zone in 2010 shows that 81.2% of pregnant women were satisfied with provider's politeness (Ejigu *et al.,* 2013).

In Egypt in 2010 about 69.6% of pregnant women were satisfied with gaining explanation about results of their investigation (Montasser1 *et al.,* 2012). The procedures were not explained for 32.2% of the respondents in Bahir Dar special zone as to studies done in Bahir Dar in 2010 (Ejigu *et al.,* 2013).

As to a cross sectional study conducted in Egypt in 2010 around 66.7% of the pregnant women were satisfied with setting and hygiene of examination room of antenatal care service. About the toilet condition of the clinic 42.7% of Nigerian pregnant women were unsatisfied and in Ethiopia more than half (51.9%) of pregnant women were unsatisfied with toilet and water supply of the clinic in Bahir Dar in 2010 according to a cross sectional studies done in both towns (Montasser1 *et al.,* 2012; Oladapo *et al.,* 2008; Ejigu *et al.,* 2013).

Overall 85.1% and 92.9% of pregnant women in Egypt in 2012 and Nigeria in 2006 recommend the health facilities to their relatives and also 92.6% and 85.8% of them willing to come again to the facility for ANC service respectively as to cross sectional studies done on both countries (Rahman El Gammal, 2014; Oladapo *et al.,* 2008).

In Bahidar special zone 92.2% of the respondents wants to recommend the health facilities to others for ANC service as to cross sectional study done there in 2010 (Ejigu *et al.,* 2013).

2.2 Factors associated with Antenatal Care services satisfaction among pregnant women

According to secondary analysis of Demographic Health Survey of Nepal in 2011 and Nigeria in 2011 pregnant Women with a tertiary education had 1.53 and 2.69 times greater odds of satisfaction with ANC services compared to those with no formal education in Nepal and Nigeria respectively but in Malaysia in 2014 pregnant women with secondary level of education and primary level of education were less likely to be highly satisfied according to a cross sectional study done there (Rahman *et al.,* 2016, Fagbamigbe and Idemudia, 2015; Joshi *et al.,* 2014).

In Ethiopia pregnant women with average family monthly income below 500birr 8.84 times and from 751 to 1000birr 3.03 times were satisfied with the service than those with average family monthly income above 1000 birr and from 500 up to 750 as to cross sectional study conducted in Jimma in 2013 (Chemir *et al.,* 2014).

Another cross sectional study from southwest Nigeria in 2006 shows that religion has association with women's satisfaction with ANC services; other religions versus Islam with AOR: 0.14 (Oladapo and Osiberu, 2009).Analysis indicated that in Malaysia pregnant women of Bidayuh ethnic group were less likely to be highly satisfied with antenatal care services as to cross sectional study done there in 2013 (Rahman *et al.,* 2016).

In Jimma town pregnant women with planned pregnancy and had no history of stillbirth were 5.05 and 5.47 times satisfied with the ANC services than those with unplanned pregnancy and had history of stillbirth respectively. In Bahir Dar pregnant women initiated ANC visit in the first trimester and with a repeated ANC visit were 2.33 and 2.92 times satisfied than who

initiated after 1st trimester and the new (1st) visit respectively as to cross sectional studies conducted in Jimma in 2013 and Bahir Dar in 2010 (Chemir *et al.,* 2014; Ejigu *et al.,* 2013).

Pregnant women who received service from female health provider and who had privacy during consultation time were 2.56 and 2.12 times satisfied with ANC service than who received from male health provider, and had no privacy respectively. Women who had 20- 40 minute duration of consultation time, and gained explanation about the procedure before ANC examination were 4.18 and 5.47 times more satisfied with ANC services than those who had <20 min consultation time and who did not gained explanation about the procedure respectively as to cross sectional study conducted in Bahir Dar special zone in 2010 (Ejigu *et al.,* 2013).

2.3 Conceptual Framework

Pregnant women's socio demographic characteristics, obstetrics and reproductive profile, and health service related characteristics affects their ANC services satisfaction.

Figure 1: Conceptual framework for pregnant women's Antenatal care services satisfaction

Source: - developed using different literatures **(**Rahman *et al.,* 2016, Fagbamigbe and Idemudia, 2015; Joshi *et al.,* 2014; Chemir *et al.,* 2014; Ejigu *et al.,* 2013)

3. MATERIALS AND METHODOS

3.1. Study Area and Period

This study was conducted in Harari Region from February 01 to February 30/2017. Harari Region is one of the nine regional states found in Ethiopia. It has a total population of 240,000 of those 116,928 are male and 123,072 female, and 53,383 women of reproductive age group. Harari region has 9 woreda and 36 kebeles with total house hold of 59,487. It has an estimated area of 333.94 square kilometers, with estimated density of 595.9 people per square kilometer and found at a distance of 526 KM southeast of the capital Addis Ababa. The mean annual daily temperature of the Region is 19.2 0c and found at altitude of 1300 m above sea level. The region is bounded in east, west, north and south by Oromia Regional state (Harar city Municipality report, 2016|).

Concerning to health profile of the region, there are two public hospitals and eight public health centers with 591 health professionals, among those 38 are Midwives & 310 are Nurses, and the antenatal care one (ANC1) coverage of the region was above 100% but antenatal four (ANC4) coverage of the region was around 53% in 2016/17 G.C (Harari regional health bureau report, 2016).

3.2. Study Design

Health Institution based cross-sectional study design supplemented by qualitative inquiry with a phenomenological study design was used to assess pregnant women's ANC service satisfaction and associated factors.

3.3. Population

3.3.1. Source population: the source population was all pregnant women utilizing antenatal care services in public health facilities in Harari region.

3.3.2. Study population: the study population was all pregnant women utilizing antenatal care service in public health facilities during data collection period in Harari region.

3.4. Inclusion and Exclusion Criteria

3.4.1. Inclusion criteria: All pregnant women who were registered for ANC service during data collection period.

3.4.2. Exclusion criteria: Pregnant women who were seriously sick and unable to respond to the questions were excluded from this study.

3.5. Sample Size Determination

3.5.1 Sample Size Determination for the First Objective

The required sample size for the first objective was calculated using a formula for single population proportion (n = (Z/2)2pq/d2)) with the following assumptions: Confidence level at 95% =1.96 (Za/2= 1.96), p(best estimate of population proportion) = 60.4% from a study done in Jimma town (Chemir *et al.,* 2014), q= (1- p) = (1-0.604) = 0.396, d(maximum acceptable difference/ Margin of error) = 5%= 0.05= d2= 0.0025,

n= = =367.5≈ **368**

3.5.2 Sample Size Determination for the Second Objective

Double population proportion formula was used to determine the sample size for the factors associated with pregnant women's satisfaction with Antenatal Care Service. Sample size was calculated for some of the associated factors obtained from different literatures by using the Statcalc of Epi Info statistical software version 7 with the following assumptions: Confidence level = 95%, Power = 80%, the ratio of unexposed to exposed almost equivalent to 1

Using double population formula:

p1 = current estimate of population proportion, P1 (for non-exposed or control group)

q1 = 1- p1,

p2 = current estimate of population proportion, P2 (for exposed or treated group)

q2 = 1-p2,

p3 = estimated average of p1 and p2, q3 = estimated average of q1 and q2

Zα = the Z value corresponding to the alpha error. This is the value at two tailed, Zβ = the Z value corresponding to the beta error

Table 1: Sample size calculation for different factors associated with ANC service satisfaction in Public Health facilities of Harari region, February 2017.

Variables	**Level of satisfaction with ANC services**		**Sample size**	**AOR**	**Reference**
	Exposed	**Non-exposed**			
Time of initiation of ANC	54%(with 1st trimester)	34.2%(after 1st trimester)	446	2.11	(Ejigu et al., 2013)
Frequency of ANC visits	56% (repeat)	35 % (New)	400	2.92	(Ejigu et al., 2013)
History of still birth	65.2%(no)	50%(yes)	506	5.05	**(**Chemir et al., 2014)

Finally, after sample sizes have been calculated for the first and the second objectives the largest sample size was found to be 506 from the second objective. By taking it and adding 5% for the non-response rate, the final sample size was **531**.

For the qualitative component of the study, by grouping the health facilities in to two as hospital and health center four FGDs (two in each group); two in hospitals (Jugol and Hiwot fana specialized teaching) and two in Health Centers that have relatively large patient flow (Arategna and Hasenge) were conducted with 6 to10 pregnant women in each FGD.

3.6. Sampling Procedure

For the quantitative study all public health facilities in Harari region (Jugol hospital, Hiwot fana specialized teaching hospital, Aboker HC, Amir-Nur HC, Asenge HC, Erer HC, Jenella HC, Arategna HC, Harawe HC, Sofi HC) providing antenatal care services were included as stratum. To achieve the desired sample size, the number of pregnant women from each public health facilities was determined by a proportional to size allocation based on the average number of ANC users in the most recent quarterly report (first quarter of 2009 Ethiopian calendar) of each public health facilities.

Based on the first quarter (3month) report of 2009 E.C there were 3243 pregnant women received antenatal care in all public health facilities, which implies that on average 1081 pregnant women received antenatal care in each month in all public health facilities (Jugol hospital (243), Hiwot fana specialized teaching hospital (256), Aboker HC(35), Amir-Nur HC(47), Hasenge HC(98), Erer HC (63), Jenella HC(67), Arategna HC(171), Harawe HC(53), Sofi HC(48)) and by using a proportional to size allocation 119, 126, 17, 23, 48, 31, 33, 84, 26, and 24 number of pregnant women were needed from Jugol hospital, Hiwot fana specialized teaching hospital, Aboker health center, Amir-Nur health center, Hasenge health center, Erer health center, Jenella health center, Arategna health center, Harawe health center, and Sofi health center respectively.

To select individual participants from each health facilities systematic sampling was applied by assuming that average 1081 pregnant women received antenatal care in each month as number of women attended the health facilities for antenatal care; then the sample size 531 was divided to the total number of pregnant women received the care in each month to find the sampling

fraction (K), and it was found to be one half (1/2). Then every other pregnant woman who receives antenatal care was recruited for the study.

For the qualitative component of the study, a convenience sampling technique was applied to select pregnant women who share characteristics but usually do not know each for the FGD by taking the health facilities (in which they received care) as homogeneity criteria.

Systematic random sampling (SRS)
Probability Proportional to size (PPS)

Key: JUH= Jugol hospital, HFSTH= Hiwot fana specialized teaching hospital, AB= Aboker, AM= Amir-Nur, AS= Hasenge, ER= Erer, JN= Jenella, AR= Arategna, HR= Harawe, SO=Sofi, HC= Health center, PW=Pregnant women

Figure 2: Schematic presentation of the sampling procedure for study on ANC services satisfaction and associated factors among pregnant women.

3.7. Data Collection Methods

The data were collected by using structured questionnaire and measurement scales which were adapted from reviewing different literatures (Matejić *et al.,* 2014; Chemir *et al.,* 2014; Ejigu *et al.,* 2013; UNICEF, 2009). The questionnaire contains 56 items including socio-demographic characteristics, obstetric profile, health service characteristics and measure of satisfaction. The outcome variable satisfaction was assessed using a 5-point Likert scales ranging from very dissatisfied to very satisfied (1= very dissatisfied, 2= dissatisfied, 3= neutral, 4= satisfied, 5= very satisfied points) with 29 items.

The data collectors were ten in number who are Grade 10 completed or above and they were supervised by two diploma nurses. All the necessary trainings were provided by one BSc nurse who is native Afaan Oromo speaker after he was trained the English version by the principal investigator. Training was given by Affan Oromo and Amharic on how to ask and fill the questions, to approach the respondents and when and where should the data be collected. The selected participants were informed by the data collector as she is selected to participate in the study. The data collectors and supervisors were non-staff members and female in gender to make clients feel more confidential and anonymous.

The questionnaires were filled by direct face to face structured interview. Clients were interviewed at exit time and outside the service room far away from employees (health service provider) and other clients to minimize potential bias. Then data was collected from each pregnant mother in a period of one month.

For the qualitative part (Focus Group discussion), Focus group interview guideline was applied to guide and probe the focus group discussion. The focus group interview guideline includes

probing questions on three thematic areas; areas of care clients satisfied, areas of care clients not satisfied and client suggestions regarding how to make services more satisfactory. Two persons who are native Afaan Oromo and Amharic speaker and have experience of FGD were involved in FGD as a note taker and modulator for each FGD. Training was provided for the modulator and note taker by the principal investigator about purpose of the study, interview guideline, how to conduct FGD, note taking and recording and logistics. All discussions were recorded & field notes were taken and transcribe to texts immediately. Each discussion time was depending on information saturation. The discussion was taken place in neutral setting (out of the health facility) and at covenant time to the participants.

3.8. Study Variables

3.8.1. Dependent Variable

Antenatal care services satisfaction status

3.8.2. Independent Variables

*Socio-demographic variables (*age, educational status, ethnicity, religion, marital status, occupation, place of residence, monthly income),

Obstetrics and reproductive health profile (frequency of ANC visits, history of stillbirth, type of pregnancy, parity, history of abortion, history of ANC, history of previous ANC)

Health service characteristics (sex of service provider, duration of consultation time, working time convenience, waiting time to get service, explanation of the procedure, privacy during examination, proximity)

3.9. Operational Definition

Satisfaction with ANC Services: − 75% (22/29) response of the twenty nine(29) satisfaction indicator items were categorized under “satisfied” and “unsatisfied”. Those who are satisfied in less than 75% (<22/29) of the items were considered as “unsatisfied” and those who are satisfied with 75% or more (>=22/29) of the items were considered as “satisfied”. (BAZANT and M.A. KOENIG 2009; Tayelgn, D.T. Zegeye *et al.* 2011; Mesafint E M, Worku A Y *et al.* 2014)

3.10. Data Quality Control

The questionnaire was translated into the local languages i.e. Amharic and Affan Oromo for data collection and then retranslated back into English. Two days training was provided to the data collectors and supervisors on the data collection tool and the data collection procedure. Then the questionnaire was pretested on 5% of the sample size out of the study area (Haramaya town) to ensure its validity. Data collectors were supervised closely by the supervisors and the principal investigator. Completeness of each questionnaire was checked by the principal investigator and the supervisors on daily basis. Double data entry was done by two data clerks and the matching of the entered data was cross checked by comparing the two separately entered data using SPSS.

3.11. Data Processing and Analysis

The data were first coded and entered using EpiData statistical software version 3.1 and then exported into SPSS statistical software version 22 for further analysis. Descriptive statistical analyses such as simple frequencies, measures of central tendency and measures of variability were used. Responses on the indicators were recorded using a five scale liker scale (very dissatisfied, dissatisfied, neutral, satisfied, and very satisfied). Then, very satisfied and satisfied were merged as "satisfied" and neutral, dissatisfied and very dissatisfied were merged to "unsatisfied" to identify the outcome variable. Neutral responses were classified as dissatisfied considering that they may represent a fearful way of expressing dissatisfaction. This is likely because the interview was undertaken within the health facilities and mothers may have been reluctant to express their dissatisfaction with the services they received. Then the information was presented using frequencies, summary measures, tables and figures. Bi-variable analysis was used to see the association between each independent variable and the outcome variable by using binary logistic regression. All variables with p-value ≤ 0.25 were taken into the multivariable model to control for all possible confounders and the variables were selected by forward stepwise technique. Hosmer Lemshow goodness of fit test was done to test for model fitness during multivariable logistic regression analysis. Multi co-linearity test was carried out to see the correlation between independent variables using the value of standard error. Variables with standard error value of greater than 2 were dropped from the final model. Odds

ratio along with 95% CI were estimated to measure the strength of the association between dependent and independent variables and identify factors associated with an outcome variable of interest. Level of statistical significance was declared at p- value less than 0.05.

For qualitative study narrative analysis method was used; first individual, pre-labeled recorders were transcribed and then translation and back translation of the transcription was performed. The discussion was conducted in Amharic and Afaan Oromo so that it was translated to English and back translated to Amharic and Afaan Oromo. Next completed transcription was compared with hand written notes to fill inaudible phases or gaps in tapes. The data were coded and grouped based on thematic frameworks (three thematic areas: areas of care clients satisfied, areas of care clients not satisfied and client suggestions regarding how to make services more satisfactory). Concepts were extracted from themes and presented in narratives and used to support the quantitative results.

3.12. Ethical Considerations

Before starting of the data collection process, ethical clearance was secured from Haramaya University Institutional Health Research Ethics Review Committee (IHRERC). Official letter was written from Haramaya University to Harari Regional Health Office and the data collection begun after permission and cooperation letter was written to all public health facilities found in the region up on which the study was carried out.

The study title, purpose, procedure and duration, possible risks and benefits of the study were clearly explained for the participants using local language. Then, individual informed written consent was taken. The respondents were assured of confidentiality by excluding their name during the period of data collection. They were informed well that they have full right to totally refuse to participate and/or with draw from the study at any time of they have any difficulty.

4. RESULTS

4.1 Socio-demographic characteristics of the study participants

A total of 516 pregnant women were enrolled in the study giving a response rate of 97.4%. The mean and standard deviation of the age of pregnant women was 23.9 (±4.4) years with a range from 18 to 40 years. Majority (96.7%) of the respondent were below the age of 35 years. With regard to education Two hundred twelve (41.1%) of mothers had no formal. Five hundred fourteen of the respondents (99.6%) were married and 57.9% were urban dwellers. Three hundred eighty-four of the respondent were Muslim by religion and 66.7% of them were house wife. The median household income of the respondents was 3000 ETB with the range from 500 ETB to 6000ETB. (Table 2)

Table 2: Socio-demographic characteristics of pregnant women attending Antenatal care at public health facilities in Harari region, Eastern Ethiopia, February 2017.

Variables	Frequency	Percentage
Age in years		
15-24	289	56.0
>= 25	227	44.0
Religion		
Orthodox	113	21.9
Muslim	384	74.4
Protestant	19	3.7
Others	0	0
Residence		
Urban	299	57.9
Rural	217	42.1
Ethnicity		
Oromo	381	73.8
Amhara	75	14.5
Gurage	30	5.8
Others	30	5.8
Educational status		
Unable to read and write	146	28.3
Able to read and write	66	12.8
Primary (1-8)	97	18.8
Secondary (9-12)	129	25.0
College and above	78	15.1
Partner's educational status		

Unable to read and write	141	27.3
Able to read and write	99	19.2
Primary (1-8)	58	11.2
Secondary (9-12)	66	12.8
College and above	150	29.1
Occupation		
House wife	344	66.7
Merchant	63	12.2
Employed	77	14.9
Daily laborer	12	2.3
Farmer	16	3.1
Student	4	0.8
Income		
< =2000	198	38.4
2001-4000	236	45.7
>4000	82	15.9

4.2 Obstetric and reproductive health profile of the Study Participants

Among all the study participants, 54.7% of them had at least one history of ANC visit. Two hundred ninety (56.2%) of the respondent began their Antenatal care within the first trimester of their pregnancy and for 67.2% of them their current visit was a revisit. Regarding their parity, 56.2% of the respondents were multipara and 57.0% of them were multigravida. About 13.2% and 8.1% of the respondents had history of stillbirth and history of abortion, respectively. (Table 4)

Table 3: Obstetric and reproductive health profiles of pregnant women attending ANC at public health facilities in Harari region, Eastern Ethiopia, February 2017.

Variables	Frequency	Percentage
History of previous ANC		
Yes	282	54.7
No	234	45.3
Time of initiation of ANC		
1-3 month	290	56.2
4-6 month	200	38.8
7-9 month	26	5.0
Frequency of ANC visit/current visit		
First visit	169	32.8
Second visit	164	31.8
Third visit	121	23.4

Fourth visit	62	12.0
History of Gravidity		
Gravida 1	197	38.2
Gravida 2-5	294	57.0
Gravida >5	25	4.8
History of Parity		
nulliparous	202	39.1
Multipara	290	56.2
Grand multipara	24	4.7
History of still birth		
Yes	68	13.2
No	448	86.8
History of abortion		
Yes	42	8.1
No	474	91.9
Status of current pregnancy		
Intended	491	96.1
Unintended	25	3.9

4.3 Health Service related Characteristics of the Study Participants

Of all the participants, 52.9% of them have received their service from health center and 76.7% from female health professional. Four hundred forty (85.3%) of the respondents have waited for 30 minute or less in the health facility to get service and 70.2% had less than twenty minute consultation time with their service provider. Four hundred forty five (86.2%) of the pregnant women had privacy during examination and for 57.4% of them the service provider did not explain the procedure to them before examination. Working time was convenient for 97.1% of the respondents and 71.4% of the respondents took 30 minute or less to reach to the health facility (Table 4)

Table 4: Health Service Characteristics of pregnant women attending antenatal care at public health facilities in Harari region, Eastern Ethiopia, February 2017

Variables	Frequency	Percent
Type of health facility		
Hospital	243	47.1
Health center	273	52.9
Sex of ANC service provider		
Female	396	76.7
Male	120	23.3

Waiting time to get service		
<= 30 minute	440	85.3
>30 minute	76	14.7
Duration of consultation time		
>=20 minute	154	29.8
<20 minute	362	70.2
Service provider explain the procedure before examination		
Yes	220	42.6
No	296	57.4
Privacy during examination		
Yes	445	86.2
No	71	13.8
Convenience of working time		
Yes	501	97.1
No	15	2.9
Time taken to reach health facility		
<= 30 minute	371	71.9
>30 minute	145	28.1

4.4 Antenatal care service satisfaction among pregnant women

Three hundred and sixty three 70.3% (95% CI: 66.4%, 74.3%) of the pregnant women were satisfied and 153(29.7%) (95% CI: 25.8, 33.7%) were dissatisfied with the antenatal care services offered at the public health facilities in the study area.

Based on component wise level of satisfaction, greater proportion of satisfaction was recorded on interpersonal skill 404(78.3%) followed by physical environment aspect 403(78.1%) and organization of health care aspect 391(75.8%). but 201(39%) of the respondents were unsatisfied with technical aspect of antenatal care. (Figure 3)

The finding was supported by qualitative results as: majority of the discussant share the idea that *……..they were very happy with the physical environment of the health facilities and they are also happy with the service provider's politeness and eagerness to help them. One of discussant from Hiwot fana specialized teaching hospital* (*HFSTH) also said that "…….this new maternity building has improved the hospital in many ways for example now the ANC unit has separate examination room which improves privacy and waiting time. Waiting area has comfortable chair and enough space". Another discussant from Hasenge HC also said that*

"……..I was happy because they gave me freedom to speak what I feel and they tried to ask me what I feel and had given me information by using the language that I can easily understand…."

The findings on areas of dissatisfaction was also supported by qualitative findings as: many of the discussants forwarded that: *……..they are not happy with the way how physical examination was done and they also have question on the appropriateness of physical examinations done on them so they have questions on the technical ability of those service provider. One of the discussant from Jugol hospital said that "…….I was not happy on the examinations they had performed; they didn't tell me the purpose of the procedure, they are too rush to finish it and they look lacking confident". The other dissatisfaction area was the administration process (organization of health care) of the health facilities. One of the discussant from HFSTH said that "……the service provider in the laboratory department (service) is not polite sometimes even they irritate easily and became harsh to the service users……" The other discussant from Arategna health center also said that "……the problem is out of this building (MCH building). It (the problem) is in the registration process (card/chart room). Sometimes it is difficult to find our card and they (registration personnel) simply say our card is not there……"*

Figure 3: Satisfaction with different components of ANC services among pregnant women attending ANC at public health facilities in Harari region, February 2017

Out of the indictors used to measure the overall level of satisfaction with antenatal care services in this study, Laboratory and other diagnostic service related satisfaction (88.4%), examination room cleanness related satisfaction (91.9%), privacy related satisfaction (91.9%), and politeness/respectfulness of the service provider related satisfaction (95.5%) were the highest value. Service provider explanation about the procedure related satisfaction (40.9%), hand washing facility of the institution related satisfaction (45.5%), administration process of the institution related satisfaction (45.9%), explanation about finding or result related satisfaction (63.2%), clean and hygienic way of performing procedures related satisfaction (65.5%), service provider interest to know clients concern about their pregnancy related satisfaction (69.4%), functional toilet in the institution related satisfaction (69.6%) were the first least values. (Figure 4)

Overall 497 (96.3%) of the respondents wants to recommend the health institutions that they received service for the other pregnant family member or friends to follow their ANC service there.

Sp* service provider

Figure 4: The percentages of items used to measure the overall Antenatal care services satisfaction for pregnant women in public health facilities of Harari region, February 2017.

4.5 Factors associated with Antenatal Care services satisfaction among pregnant women

Both bivariable and multivariable binary logistic regression analyses were done to identify predictors of satisfaction with ANC services among pregnant women. In multivariable logistic regression analysis, it was observed that Pregnant women who utilize service in Hospital were 2.44 times [AOR = 2.44, 95% CI: (1.50-3.98)] more likely to be satisfied with ANC services than who utilize service in Health center, those who had no formal education were 2.53 times [AOR = 2.53, 95% CI: (1.52, 4.20)] and those who attended Primary education were 2.17 times [AOR = 2.17, 95% CI: (1.17, 4.04)] more likely to be satisfied with ANC services than those who had secondary and above education. Moreover, pregnant women who had a repeated ANC visit were 4.62 times [AOR = 4.62, 95% CI: (2.98, 7.17)] more likely to be satisfied with ANC services than those who had a New/first visit, pregnant women who begun their ANC visit within the first trimester of their pregnancy were 1.74 times [(AOR = 1.74, 95% CI: (1.12, 2.71)] more likely to be satisfied with ANC services than who have begun ANC after the first trimester of their pregnancy, pregnant women who had no history of stillbirth were 2.52 times [AOR = 2.52, 95% CI: (1.37, 4.65)] more likely to be satisfied with ANC services than who had history of stillbirth, and pregnant women who waited for no more than half an hour in the health facility to get service were 2.31 times [AOR = 2.31, 95% CI: (1.28, 4.16)] more likely to be satisfied with ANC services than who waited for more than half hour.(Table 5)

Table 5: Factors associated with ANC service satisfaction among pregnant women attending ANC at public health facilities in Harari region, Eastern Ethiopia, February 2017.

Variables	Overall satisfaction		Crude OR (95% CI)	Adjusted OR (95% CI)
	Satisfied N (%)	Unsatisfied N (%)		
Type of health institution				
Hospital	188(77.4)	55(22.6)	1.91(1.29-2.82)	2.44(1.50-3.98)*
Health center	175(64.1)	98(35.9)	1	
Educational status				
No Formal education	157(74.1)	55(25.9)	1.65(1.09-2.51)	2.53(1.52-4.20)*
Primary	75(77.3)	22(22.7)	1.97(1.13-3.43)	2.17(1.17-4.04)***
Secondary and above	131(63.3)	76(36.7)	1	
History of previous ANC				
Yes	207(73.4)	75(26.6)	1.38(0.94-2.01)	1.53(0.99-2.35)
No	156(66.7)	78(33.3)	1	
Frequency of current ANC visit				
Revisit	280(80.7)	67(19.3)	4.33(2.89-6.47)	4.62(2.98-7.17)*
New/first	83(49.1)	86(50.9)	1	
Time of initiation of ANC				
Within the first trimester	217(74.8)	73(25.2)	1.62(1.11-2.38)	1.74(1.12-2.71)***
After the first trimester	146(64.6)	80(35.4)	1	
History of still birth				
No	327(73.0)	121(27.0)	2.40(1.43-4.04)	2.52(1.37-4.65)**
Yes	36(52.9)	32(47.1)	1	
History of abortion				
Yes	33(78.6)	9(21.4)	1.60(0.74-3.43)	1.66(0.68-4.04)
No	330(69.6)	144(30.4)	1	
Waiting time to get service				

<= 30 minute	321(73.0)	119(27.0)	2.18(1.33-3.60)	2.31(1.28-4.16)***
>30 minute	42(55.3)	34(44.7)	1	
Duration of consultation time				
>=20 minute	119(77.3)	35(22.7)	1.64(1.06-2.55)	1.45(0.87-2.42)
<20 minute	244(67.4)	118(32.6)	1	

*Asterisk * shows the variable is significant at p-value *=0.001, **=0.003, ***=0.005, ****=0.014, in multivariable logistic regression analyses*

5. DISCUSSION

About 273(52.9%) of the pregnant women received their ANC services from public health centers and the mean and standard deviation of the age of pregnant women was 23.9 (±4.4) years with a range from 18 to 40 years. Two hundred twelve (41.1%) of the pregnant women had no formal education. About 282(54.7%) of the pregnant women they had at least one history of ANC visit and for 347(67.2%) of them their current visit was a revisit. Sixty-eight (13.2%) of them had history of stillbirths and 85.3% of the respondents they have waited for 30 minute or less in the health facility to get service.

Pregnant women ANC services satisfaction in the study area was 70.3% which is nearly in line with a study conducted in Uganda where the proportion of pregnant women satisfied with antenatal care services was 74.6% (Tetui *et al.,* 2012). This finding is lower than the study done in Sweden 82% (Hildingsson and Rådestad, 2005). But it is very high when compared with other studies done in other parts of the world like Pakistan 46% and Oman 59% (Majrooh *et al.* 2014; Mohammed and Khandekar, 2008). This variation may be because of a real difference in quality of services provided or difference in study setting, population and methods such as measure of satisfaction needs standardized scales and tools for accurate measurement but most of the literatures measure satisfaction with simple yes/no response category.

The finding is also higher when it is compared with studies done in Ethiopia, in Jimma town 60.4% and Bahir-dar special zone 52.3% (Chemir *et al.,* 2014; Ejigu *et al.,* 2013). This difference may be due to real differences in quality of services provided or may be due to

difference in study setting that is studies done in Jimma and Bahir-dar special zone includes only health centers but in this study both health centers and hospitals were included.

There is also a difference in satisfaction level in different aspects of antenatal care services. The results of this study indicated that more than three fourth 78.3% of pregnant women were satisfied with interpersonal skill of service provider which is in line with the study conducted in Jimma town 80.7% (Chemir *et al.,* 2014). The results of this study also indicated that 78.1%, 75.8% and 61% of pregnant women were satisfied with physical environment, organization of health care and technical aspects of antenatal care services respectively. This finding is very high when it is compared to study conducted in Jimma town where 32.9%, 62.2% and 50.1% of pregnant women were satisfied with physical environment, organization of health care and technical quality aspects of antenatal care services respectively (Chemir *et al.,* 2014). The reason for this difference might be due to an increase government concern for maternal health service in terms of qualified human power such as midwives and nurses. Besides, government focuses on comprehensive in-service trainings that might play for quality of service delivery. The other probable reason for the difference might be due to as a result of some improvements in the infrastructure of the health facilities (new Maternity building of Hiwot fana specialized teaching hospital).

The major area of satisfaction forwarded by the majority of the respondents were politeness of the service provider (95.5%) this finding is in line with study done in Oman (Mohammed and Khandekar, 2008), privacy during examination (91.5%) and examination room cleanness (91.5%) which are in line with the study done in Egypt which were 88% and 66.7% respectively (Tetui *et al.,* 2012). Moreover, the major area of dissatisfaction forwarded by the majority of the respondents were Explanation about the procedure (59.1%) which is higher than the findings of a study done in Bahir-dar special zone (32.2%)(Ejigu *et al.,* 2013), hand washing facility of the institution (54.5%) which is in line with the findings of a study done in Bahir-dar special zone (51.9%)(Ejigu *et al.,* 2013), explanation about finding or result (36.8%) which is inconsistence with study done in Egypt(30.1%) (Montasser1 *et al.,* 2012), and availability functional toilet in the institution (30.4%) which is lower than studies done in Nigeria(42.7%) and Bahir-dar special zone(51.9%) (Montasser *et al.,* 2012; Ejigu *et al.,* 2013).

Educational status of pregnant women was significantly associated with antenatal care satisfaction. Indicating that pregnant women who had no formal education and who had primary education were more likely to be satisfied with the care they received compared to pregnant women who had secondary and above education. The possible reason why women with lower level of education were satisfied was because women with a lower level of education probably easily accept and satisfy what the service provider told them and do not seeking additional information and do not know what to expect. This finding disagrees with studies conducted in Nepal and Nigeria (Fagbamigbe and Idemudia, 2015; Joshi *et al.,* 2014) where pregnant women with tertiary education were more likely to be satisfied with antenatal care services than who has no formal education. The reason for this difference might be due to the fact that there could be uniformity/understanding in communication between women with a high level of education and the service providers; it is known that communication is facilitated by similar social and educational background.

The findings of this study also declared that the frequency of ANC visit was the other significant factors for women's satisfaction with antenatal care services they received, pregnant women who visited antenatal care unit for two or more times (revisit) were more likely to be satisfied with antenatal care services than those who visited the antenatal care unit for the first time (new). This is in line with study done in Bahir-dar special zone (Ejigu *et al.,* 2013). The probable reason might be due to the fact that previous experience of pregnant women may affect their knowledge about the expected care which in turn would largely affect the expectations as well as perceptions of the pregnant women.

Pregnant women who began their ANC visit within the first trimester of their pregnancy were more likely to be satisfied with the antenatal care service they received than pregnant women who began their ANC visit after the first trimester of their pregnancy. This is supported by other study done in Bahir dar special zone (Ejigu *et al.,* 2013). This could be due to the reason that early initiation of ANC will increase pregnant women's chance of having a repeated visit, which in turn affects the expectations and perception of the pregnant women due to their previous experience.

In this study it was found that, pregnant women who had no history of still birth were more likely to be satisfied with ANC service as compared to pregnant women who had history of still

birth. This is in line with study done in Jimma (Chemir *et al.,* 2014). The probable reason for decreased likelihood of satisfaction among pregnant women with previous history of stillbirths may be since the service they received in their past pregnancy antenatal care follow up end up in still birth they may develop lack of faith on the service they were receiving and associating cause of stillbirth with constraints from the service they received.

In addition, pregnant women who received antenatal care services in hospital were more likely to be satisfied with antenatal care services than who received in health center this difference might be due to the fact that hospitals have a better resources: infrastructure, human power, medical equipment and materials than health centers. Pregnant women who waited for no more than half hour in the health facility to get service were more likely to be satisfied with antenatal care services who waited for more than 30 minute.

As strength of this study, the study design applied in this study includes both quantitative and qualitative methods of data collection this increases the reliability of the data and since the data collection was immediately after the client exit from service area it reduces recall bias. As a limitation social desirability bias could have been there because client may get difficulty to answer dissatisfaction in the presence of interviewer and Hawthorn effect (change of performance due to attention) might also be there because service provider might acted differently if he/she knows that he/she is under attention. To minimize both this interview was conducted in a separate room by female non-staff member data collector away from the service provider, service area and other clients. Since the study is institutional based it might underestimate the results related to satisfactions. Because it is possible that dissatisfied clients might not come to health institutions

6. CONCLUSION

The proportion of satisfaction of pregnant women with antenatal care services was high. More than three fourth of the respondents were satisfied with interpersonal skill, physical environment aspect, organization of care aspect of antenatal care. But more than one third of the respondents were unsatisfied with technical aspect of antenatal care.

Receiving ANC service from the hospital, having no formal educational and having a primary education, having a repeated visit of ANC, initiating ANC services within first trimester, having no history of stillbirth, and waiting for no more than 30 minute in the health facility to get service were identified as positively significant associated factors with antenatal care services satisfaction.

7. RECOMMENDATIONS

To public health facilities found in Harari region

Give emphasis on improving the technical quality of their health professionals and also give emphasis about improving some infrastructures of the facility like hand washing and toilet facilities are the subject of future improvement strategies to increase Antenatal care service satisfaction.

The health facilities administration should try to relive the existing problem with administration process like difficulties to find pregnant women's card/chart and long waiting time to get services

To Regional health bureau

Since, patient satisfaction is an increasingly important issue both in evaluation and shaping of health care, it should be carried out routinely in all aspects of health care to improve the quality of health services.

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9. APPENDIX

Appendix I: Information Sheet and Informed Voluntary Consent Form for Heads of Health facilities

My name is _____. I am working as a data collector for the study being conducted in this community by Simon Birhanu who is studying for his Master's degree at Haramaya University, the College of Health and Medical Sciences. I kindly request you to lend me your attention to explain you about the study and your institution being selected as the study setting.

The study/project title: level of Satisfaction with Antenatal Care Services and associated factors among pregnant women attending Antenatal care service at Public Health facilities in Harari Region, Eastern Ethiopia

Purpose/aim of the study: The findings of this study can be of a paramount importance for Harari Region Health Bureau and Public health facilities to plan to improve quality of antenatal care service. Moreover, the aim of this study is to write a thesis as a partial requirement for the fulfillment of a Master's program in Health Service Management for the principal investigator.

Procedure and duration: I will be interviewing the pregnant women who visit antenatal care service using questionnaire to provide me with pertinent data that is helpful for the study. There are 56 questions to answer where I will fill the questionnaire by interviewing them. The interview will take about 30 minutes, so I kindly request them to spare me this time for the interview.

Risks and benefits: The risk of being participated in this study is very minimal, but only taking few minutes from pregnant mother's time. There would not be any direct payment for participating in this study. But the findings from this research may reveal important information for Harari region Health bureau in planning health services.

Confidentiality: The information that we will be provide will be kept confidential. There will be no information that will identify the participants in particular. The findings of the study will be general for the study community and will not reflect anything particular of individual person. The questionnaire will be coded to exclude showing names. No reference will be made in oral or written reports that could link participants to the research.

Rights: Participation for this study is fully voluntary. The participants have the right to declare to participate or not in this study. If they decide to participate, they have the right to withdraw from the study at any time and this will not label them for any loss of benefit which they otherwise are entitled. They do not have to answer any question that they do not want to answer.

Contact address: If there are any questions or enquires any time about the study or the procedures, please contact me:

Simon Birhanu: Mobile number (+251)-924-268716

Email Address: abiubirhanu1221@gmail.com

Institutional Health Research Ethics Review Committee: Phone Number (+251)-025-466-07-08, P.O.Box 235, Harar

Declaration of informed voluntary consent: I have read the participant information sheet. I have clearly understood the purpose of the research, the procedures, the risks and benefits, issues to confidentiality, the rights of participating and contact address for any queries. I have been given the opportunity to ask questions for things that may have been unclear. I was informed that participants have the right to withdraw from the study at any time or not to answer any question that they do not want. I am also informed that the hospital/ health center has the right to stop this study from being conducted if any misdeeds and unethical procedure are observed during the data collection process in the hospital's/health center's premises. Therefore, I declare my voluntary consent on the behalf of _____ hospital/health center to allow this study to be conducted with my initials (signature) as indicated below.

Name and signature of head of the Hospital/Health center: _____

Signature of data collector: _____ Date: _____

Appendix II: English Version Participant Information Sheet and Voluntary Consent Form

My name is _____. I am working as data collector for the study being conducted in this community by Simon Birhanu who is studying his Master's degree at Haramaya University, College of Health and medical Sciences. I kindly request you to lend me your attention to explain you about the study and being selected as the study participant.

The study title: level of Satisfaction with Antenatal Care Services and associated factors among pregnant women attending Antenatal care service at Public Health facilities in Harari Region, Eastern Ethiopia

Purpose of the study: The findings of this study can be of a paramount importance for Harari Region Health Bureau and Public health facilities to plan to improve quality of antenatal care service. Moreover, the aim of this study is to write a thesis as a partial requirement for the fulfillment of a Master's program in Health Service Management for the principal investigator.

Procedure and duration: I will be interviewing you using questionnaire to provide me with pertinent data that is helpful for the study. There are 50 questions to answer where I will fill the questionnaire by interviewing you. The interview will take about 30 minutes, so I kindly request you to spare me this time for the interview.

Risk and benefits: The risk of being participated in this study is very minimal, but only taking few minutes from your time. There would not be any direct payment for participating in this study. But the findings from this research may reveal important information for Harari region Health bureau in planning health services.

Confidentiality: The data you will provide us will be confidential. There will be no information that will identify you in particular. The findings of the study will be general for the study population and will not reflect anything particular of individual person.

Rights: Participation in this study is fully voluntary. You have the right to declare to participate or not in this study. If you decide to participate, you have the right to withdraw from the study at any time and this will not label you for any loss of benefit which you otherwise are entitled. You do not have to answer any question that you do not want to answer.

Contact address: If there are any questions or enquires any time about the study or the procedures, please contact me:

Simon Birhanu: Mobile number (+251)-924-268716

Email Address: abiubirhanu1221@gmail.com

Institutional Health Research Ethics Review Committee: Phone Number (+251)-025-466-07-08, P.O.Box 235, Harar

Declaration of informed voluntary consent: I have read/was read to me the participant information sheet. I have clearly understood the purpose of the research, the procedures, the risks and benefits, issues to confidentiality, the rights of participating and contact address for any queries. I have been given the opportunity to ask questions for things that may have been unclear. I was informed that I have the right to stop the study at any time or not to answer any question that I do not want. Therefore, I declare my voluntary consent to participate in this study with my initials (signature) as indicated below.

Name and signature of the participant: _____

Signature of data collector: _____ Date: _____

Appendix III: English Version Questionnaire

Health facility: _____

Name of Data Collector: _____ Signature_____ Date: _____

Name of Supervisor: _____ Signature_____ Date: _____

S.No.	Variable	Response	S k i p to
Part I: Parent characteristics			
101	How old are you?	____ in completed years	
102	What is your religion	1.Orthodox Christian 2. Muslim 3. Protestant 4. Catholic 5. Other (Specify)-------	
103	Where is your place of residence?	1.Urban 2.Rural	
104	What is your ethnicity?	1. Oromo 2. Amhara 3. Somali 4. Harari 5. Gurage 6. others(specify---------)	
105	What is your marital status?	1. Married 2. Single 3. Divorced 4. Widowed 5. Separated	
106	What is your level of education?	1.unable to read and write 2. able to read and write 3. _____grade student 4. diploma(10+4/12+2) 5. first degree and above	
107	What is your main occupation?	1. House wife 2. Merchant 3. Government employee 4.Non-government employee	

		5. Private employee 6. Daily laborer 7. Farmer 8. Student 99.Others specify_____	
108	What is your husband level of education?	1. unable to read and write 2. able to read and write 3. _____grade student 4. diploma(10+4/12+2) 5. first degree and above	
109	What is your husband main occupation?	1. House wife 2. Merchant 3. Government employee 4.Non-government employee 5. Private employee 6. Daily laborer 7. Farmer 8. Student 99.Others specify_____	
110	What is your monthly income	_____ Birr	
Part II- Obstetric Profiles of Pregnant Women attending ANC			
201	Where did you get your ANC service?	1. Hospital 2. Health Center	
202	History of previous ANC visit?	1. Yes 2. No	
203	At which month of your gestation did you begin ANC follow up?	_____in month	
204	Number of antenatal care visit?	_____in number	
205	Is your current pregnancy?	1. Planned 2. Unplanned	
206	How many children do you have?	_____in number	
207	How many of them are/is live birth?	_____in number	
208	Do you have history of still birth	1. Yes 2. No	
209	Do you have history of abortion	1. Yes 2. No	
PART III- Health Service Characteristics			
301	What is the sex of your ANC service provider?	1. Male 2. Female	
302	Time taken to reach to the health facility?	☐☐ hour ☐☐ minute	
303	Waiting time to get service?	☐☐ Hour	

		☐☐ Minute	
304	Duration of consultation time with service provider?	☐☐ Hour ☐☐ Minute	
305	Did the service provider explain the procedure before examination?	1. Yes 2. No	
306	In examination and consultation room you had full privacy.	1. Yes 2. No	
307	Does the working hour convenient for you?	1. Yes 2. No	

Part IV- Pregnant Women's Satisfaction with ANC Service

Satisfaction with Interpersonal and communication aspect

S.No.	The following questions are used to assess your experience during antenatal care. Please provide your agreement or disagreement to each question on a scale of 5. If you agree strongly to the statement use 5, agree to a statement use 4, if you are not sure or undecided use 3, if you disagree to a statement use code 2 and if you strongly disagree to a statement use code 1.	1.Strongly disagree 2.Disagree 3.Undecided 4.Agree 5.Strongly agree					Remark
		Mark 0n Your response					
		1	2	3	4	5	Remark
401	Welcoming environment of the institution was good						
402	Service provider's introduce him/herself well						
403	Service provider was polite/ respectful						
404	Service provider had shown effort to comfort you						
405	Service provider listen carefully during conversation						
406	Service provider asked about your problems and concerns regarding your pregnancy.						
407	Service provider was cooperative						
408	Service provider was easy to understand what he/she was tried to communicate						
409	Service provider spent enough time with me during						

	consultation						
410	You have been explained about the drug adequately						
411	You have been explained procedure before the examination started.						
412	Service provider gave you opportunity to take part in decision						
413	Service provider gave you adequate information about ANC						
414	Service provider explanation was clear and straightforward						
415	Service Provider performs of the procedure with cleanliness and sanitation.						
416	Service provider explain about your result/finding						
417	Easy to find MCH/ANC room						
418	Waiting room had adequate space/chair for resting/sitting for all clients that were waiting and was attractive						
419	waiting room was clean						
420	Examination room had adequate light and space						
421	Examination room was clean.						
422	The clinic was clean						
423	There was functional hand washing facility in the health facility						
424	There was functional toilet in the health facility						
425	Waiting time to get service was rational						
426	You got the requested laboratory, Ultrasound and X-ray examination in the facility						
427	You got the administered/ordered medications and other supplies(glove..) in the facility						
428	Administration process of the facility (registration for card…) was good						
429	Had Privacy during examination						
Say 'yes' or 'no' for the following questions							
430	Do you recommend your relatives and friends to use this health facility for antenatal care	1 yes 2 No					

Thank you very much!!!

Appendix IV: Amharic Version Participant Information Sheet and Voluntary Consent Form

[illegible]

[illegible] .... [illegible] .... [illegible]....................................

[illegible] .... [illegible] .... [illegible]....................................

Appendix V: Amharic Version Questionnaire

[illegible]	[illegible]	[illegible]	[illegible]
[illegible]: [illegible] - [illegible]			
101	[illegible]	____________ [illegible]	
102	[illegible]	1. [illegible] 2. [illegible] 3. [illegible] 4. [illegible] 99. [illegible] ([illegible])_______________	
103	[illegible]	1. [illegible] 2. [illegible]	
104	[illegible]	1. [illegible] 2. [illegible] 3. [illegible] 4. [illegible] 5. [illegible] 99. [illegible] ________________	
105	[illegible]	1. [illegible] 2. [illegible] 3. [illegible] 4. [illegible] 5. [illegible]	

106	□□/□□□	1. □ □□□□ □ □□ □□ □□□ 2. □ □□□□ □ □□ □□ □□□ 3. □□□ □□□ □□□ _____ □□□ 4. □□□ □ (10+4 □□□ 12+2) 5. □□ □□ □□ □□□□ □□ □□□ 9 9 . □ □ □□(□□ □□)_____	
107	□□□ □□□	1. □□□ □□ □□ 2. □□□ 3. □□ □□□□ □□□ 4. □ □□□□ □□□□□□□□ □□□ 5. □□□ □□□□ □□ □ 6. □□□ □□ □□ 7. □□□ 8. □□ □ 99. □□ □□(□□ □□) _____	
108	□□□□□□ □□/□ □□□	1. □ □□□□ □ □□ □□ □□□ 2. □ □□□□ □ □□ □□ □□ 3. □□□ □□□ □□□ _____ □□□ 4. □□□ □ (10+4 □□□ 12+2) 5. □□ □□ □□ □□□□ □□ □□□ 99. □□ □□(□□ □□)_____	
109	□□□□□□ □□□ □□□	1. □□ □□□□ □□ □ 2. □□□ □□□□ □□ □ 3. □ □□□□ □□□□□□□□ □□□ 4. □□□ 5. □□□ □□ □□ 6. □□□ 7. □□ □ 99. □□ □□(□□ □□)----------	
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201.	□□□□□□ □□□□ □□ □□□□□ □□ □□?	1 □□□□□ 2 □ □ □ □□	
202.	□□□ □□□ □□□□□□ □□□□ □□ □□□ □□ □□?	1.□□ 2.□□□	
203.	□□□□ □ □ □□□□ □□□ □□ □□□□□□ □□□□ □□□ □□□ (□□□ □□)?	_____ _____□□	
204.	□□ □□□□ □□□□□□ □□□□/□□ □□?	_____ _____□□□ □	

205.	[illegible]?	1. [illegible] 2. [illegible]	
206.	[illegible]?	________ [illegible]	
207.	[illegible]?	________ [illegible]	
208.	[illegible] / [illegible]?	1 [illegible] 2 [illegible]	
209.	[illegible] ([illegible])?	1 [illegible] 2 [illegible]	
[illegible]: [illegible]			
301	[illegible]?	1 [illegible] 2 [illegible]	
302	[illegible]	[illegible]	
303	[illegible]?	[illegible]	
304	[illegible]?	[illegible]	
305	[illegible]?	1 [illegible] 2 [illegible]	
306	[illegible] ([illegible]) [illegible]?	1 [illegible] 2 [illegible]	
307	[illegible]?	1 [illegible] 2 [illegible]	
[illegible] [illegible]: [illegible] [illegible] [illegible] / [illegible]			
[illegible]. [illegible]	[illegible] [illegible] / [illegible]: [illegible]: [illegible]: [illegible]: [illegible]: [illegible] ([illegible]5) [illegible] ([illegible]4) [illegible] ([illegible]2) [illegible] ([illegible]1) [illegible] ([illegible]3) [illegible]	5- [illegible] 4- [illegible] 3- [illegible] 2- [illegible] 1- [illegible]	[illegible]
[illegible] / [illegible]		1 2 3 4 5	
401	[illegible]		
402	[illegible]		

403	[illegible]						
404	[illegible]						
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Appendix VI: Afaan Oromo Version Participant Information Sheet and Voluntary Consent Form.

Maqaan koo _____ jedhama. Ani sassaabduu ragaa qo'annoo hawaasa kana irrati barataa digrii lammaffaa Yuniversitii Haramayaa kan tahe Simon Birhanuutiin geeggeeffamuuti. Isinis garee qo'annoo keenyaa taatanii waan filatamtaniif waa'ee qo'annoo kanaa isiinif ibsuuf gurra fi qalbii keessan akkanaaf ergiftan kabajaan nan gaafadha.

Mata-duree qo'annichaa: Hamma itti quufinsa hordoffii ulfaa kan dahumsa duraa fi rakkoolee wal qabatan dubartoota ulfa hordoffii dahumsa duraa dhaabbilee fayyaa mootummaa naannoo Hararii keessa jiran irratti, Baha Itoophyaatti.

Kaayyoo qo'annichaa: Argannoon qorannoo kanaa Biiroo Eegumsa Fayyaa Naannoo Hararii fi dhaabbilee fayyaa mootummaa naannoo Hararii keessa jiraniif karoora qulqullina yaalii hordofii dahumsa duraa fooyyessuuf gargaaru baasuuf faayidaa guddaa qaba. Kanaan alattis, qorannoon kun qorataan qo'annoo kanaa digrii lammaffaa isaa health service management dhaan fudhachuuf ulaagaa isa barbaachisu guuttachuuf isa gargaara.

Adeemsaa fi yeroo fudhatu: Hirmaachuuf fedhii qabdu yoo tahe gaffiiwwan garaa garaa qo'annoo kanaaf qopha'an isiniif dubbisaan deebii keessan katabadha. Baay'inni gaaffiilee walii galatti 50 kan hin caalle yoo tahu daqiiqaa 30 duwwaa fudhata.kanaafuu, yeroo muraasa naaf kennitanii obsaa fi qalbiidhaan akka na waliin turtan isinan gaafadha.

Faayidaa fi miidhaa qo'anichaa: Rakkinni qo'annoo kana keessatti hirmaachuu keessaniin isin quunnamu baay'ee xiqqaa yoo tahu, innis yeroo keessan muraasa (daqiiqaa30) qofaa fudhachuu. Qo'annoo kana irratti hirmaachuu keessaniin kaffaltiin kallaattiin kaffalamu tokko iyyuu hin jiru. Garuu bu'aan qo'annoo kanaa odeeffannoo haarawa Biiroo Eegumsa Fayyaa Naannoo Hararriitiif tajaajiloota fayyaa karoorsuuf ni gargaara.

Iccitii eeguu: Odeeffannoon isin nutti himtan hundi iccitiin qabama. Gaaffiin eenyummaa keessan maqaan/ addaatti ibsu hin jiru. Argannoon qo'annoo kanaa hawaasa qo'annaa kana irratti hirmaatan akka walii galaatti kan ibsu yoo tahu, karaa kamiinuu dhimma nama dhunfaa hin calaqqisiisu.

Mirga: Hirmaannaan qo,annoo kana keessatti gootan guutuummaan guutuutti fedhii irratti kan hundaa'edha. Mirga hirmaachuu fi hirmaachuu dhiisuu ni qabdu. Hirmaachuuf yoo murteessitsn, mirga yeroo barbaaddanitti qo'annoo kana keessaa bahuu yommuu qabaattan kana gochuu keessaniifis faayidaan isin argachuu osoo qabdanii dhabdan tokko iyyuu hin jiru. Gaaffii deebisuu hin barbaadne deebisuufis hin dirqamtan.

Teessoo

Gaaffii yookiin qeeqa qo'annoo kana ilaallatuu kamiifuu, teessoo armaan gadiin gaafachuu fi quunnamuu ni dandeessu.

Abbaa qo'annichaa: obbo Simoon Biraanuu, lakk. bilbila mobayilii: +251-924-26-87-16: Email address: abiubirhanu1221@gmail.com

Waajjira dhimma naamusaa qo'annaa fayyaa dhaabbatichaa (IHRERC) lakk. Bilbilaa 025-466-07-08 fi L.S.P. 235, Harar.

Unkaa walii galtee fedhii irratti hundaa'ee:

Unkaan walii galtee hirmaattootaa naaf dubbifameera/ dubbiseera. Kaayyoo qo'annichaa, adeemsa isaa, faayidaa fi midhaa isaa, iccitii eeguu, mirga hirmaachuu fi teessoon qo'ataa illee natti himamee jira. Wanta ifa naaf hin taane akkan gaafadhuuf carraan naaf keennamee jira. Akkan yeroon barbaadetti qo'annicha adda kutee bahuu dandahu yookiin gaaaffii deebisuu hin barbaannee deebisuu hin dirqamnes natti himameera. Kanaafuu, akkan qo'annaa kana irratti feedhii kootiin hirmaadhe mallattoo koo armaan gadiin nan mirkanneessa.

Maqaa fi mallattoo hirmaattuu _____

Maqaa fi mallattoo odeeffannoo sassaabduu_____

Hub: Waliigalteen kun fuul-dura hirmaatttuu qo'annoo fi odeeffannoo sassaabduu itti malleettaffamuun, koopppiin isaas hirmaattuuf kennamee jira.

Galatoomaa!

Appendix VII: Afaan Oromo version Questionnaire

Kuta 1:Gaffille hawwasuma fi dinagde			
Lakk	Gaffii	Debii	
101	Umrin kee meqaa?	Waggan ibsi _____	
102	Amantan kee maal?	1. Ortodoksii 2. Muslima 3. Protestantii 4. cattoliky 5. kan biro(ibsi)---	
103	Iddon jirenya kee essa?	1. meggalla 2. badiya	
104	Sabni kee mall?	1. oromo 2.amhara 3. somale 4.harari 5. gurage 6.kan birro(ibsi)	
105	Halla fudha fi heruma	1.kan herume/fudhee 2.qopha 3.kan hike 4.kan jella du'e 5.kan gargar jiru	
106	Sadarkaa barnootaa	1 Dubbisuufi barreessuu hin dandeessu 2 Dubbisuuf barreessuu qofa 3 -------Kutaa 4 dipiloma(10+4/12+2) 5 digri tokkofaa fi isa ol	
107	Dallaggan kee mall?	1 haadha mana 2 daldala 3 hojjataa motummaa 4 jojjatta miti motuma 5 hojjatta dhunfa 6 hojjatta guyya 7 qottebulaa 8 beratta 9 kanbiroo (ibsi)____	

108	Sadarkaa barnootaa abbaa warra kee?	1.Dubbisuufi barreessuu hin dandeessu 2.Dubbisuuf barreessuu qofa 3. -------Kutaa 4. dipiloma(10+4/12+2) 5. digri tokkofaa fi isa ol	
109	Dallaggan abba warra kee mall?	1. haadha mana 2. daldala 3. hojjataa motummaa 4. jojjatta miti motuma 5. hojjatta dhunfa 6. hojjatta guyya 7. qottebulaa 8. beratta 9. kanbiroo (ibsi)____	
110	Gallin kee ji'aan meqaa?	--------qarshin	
Kuta 2: Gaffile halla walhormatta fi fayyan walqabbatan			
201	Essatti ulffa kee hordoffa turte?	1. hospital 2. buffatta fayya	
202	Kanaan dura tajaajila da'umsaan duraa goote yokin hordoftee beektaa?	1. eyyen 2. hin turre	
203	Ulfa kee ji'aa meqqatti horddofu jelqabde?	------ji'aan	
204	Bayyinni horddofi meqaa ture?	----lakkofsan	
205	Ulfi kaan amma kun?	1. kerrora dhan 2. kerroran alla	
206	Ijjolle meqaa qabda?	------lakofsan	
207	Ijjolle meqaattu lubbun dhalamani?	-------lakkofsan	
208	Kannan dura daa'ima lubbu hin qabne desse turte?	1.eyyan 2.hin turre	
209	Kaannan dura ulfa bafte beekta?	1.eyyen 2.mitti	
Kuta 3:Gaffille wa'ee tajjajilla fayyan walqabattan			
301	Enyuttu tajjajila hordofi ulffa sii kenna turee?	1.dhirra 2.dhalla	
302	Mana keetii baate mana yaala gahuuf yeroo hangam sitti fudhata	1.----sa'a atin 2.-----daq iqadhan	
303	Sa'aa meqqaf turtette tajjajila argatta?	1.----sa'a atin 2.-----daq iqadhan	

304	Oggessa fayyan wajjin tajjajila argachuf sa'aa meqaa isinniti fudhata turre?	1.----sa'a atin 2.-----daq iqadhan	
305	Oggessi fayyan qorranno oso hin jalqabin dura ibsa wa'ee qorrano issinif godherra?	1.eyyen 2.lakki	
306	Oggessi fayyan yerro qorranno qodhu mirga qophatti qorrattamu issinif egga turre?	1.eyyen 2.lakki	
307	Sa'aattin tajjajilli itti kennamu issinif tollerra?	1.eyyen 2.lakki	

Kutta 4: Gaffille hallaa feedha hadholli ulfa'aan safaru yeroo tajjajilla fi hordofi issanif godhamu illalettan

Gaffille arman gaddi kun wa'ee ulfaa fi hordofi man yaallatii sif godhamme irratti illalcha qabduf kan dhiyyate wan ta'eef yoo gaffin waltatte debin kee bayy'isse walta'aa(koodi 5),walta'aa(koodi 4),wal hinta'uu(2),bayy'issee wal hinta'uu(1),yookin wa'ee kaanna offitti ammanamuma hinqabdu ta'ee (kodi 3) jechun akka naaf debiftan kabbajan ininin gaffadha		5.bayy'isse wal ta'aa 4.wal ta'aa 3.offitti ammanamuma hin qabu 2.wal hin ta'uu 1.bay'isse wal hin ta'u					
Wa'ee Hoojattota fi walligatte issanin walqabattan		1	2	3	4	5	
401	Simannaan mana yaalalichaatti namaaf godhamu yeroo itti seenan irraa eegalee gaari						
402	Oggessa fayyan wajjin haalla siirii taa'een wal barrattani ture						
403	Oggessi fayyan kan tajjajila sif kenne fayyalessa ture						
404	Oggessi fayyan kan tajjajila sii kennu akka sif mijja'uu godha						
405	Oggessi fayyan kan tajjajila sii kennu yadda kee sirrit sii dhaga'aa turre						
406	Oggessi fayyan kan tajjajila sii kennu wa'ee rakko fi ulafan wal qabattan kan sii yachisu sii gaffattaa						
407	Oggessi fayyan kan tajjajila sii kennu sii garagar ture						
408	Oggessi fayyan kan tajjajila sii kennu halla salpa ta'een siif ibsa						
409	Ogeessi fayyaa yeroo itti siwal'anutti sa'ati gahaa siif kennera						
410	Oggessi fayyan kan tajjajila sii kennu ibsa wa'ee tajajila dawaa sii kenne ture						

411	Oggessi fayyan kan tajjajila sii kennu ibsa waa'ee waan siif dalaguuf deemuu dursee siif kenne ture						
412	Oggessi fayyan kan tajjajila siif kennu hallaa faayya kee irrati murto akka offi keetin gotuf sii godhe ture						
413	Oggessi fayyan kan tajjajila siif kennu ibsa gahaa waa'ee wala'ansa siif godheerra						
414	Ibsi oggessi fayyan kan tajjajila siif kennu iffa fi kan hindogogorsin ture						
415	Oggessi fayyan kan tajjajila siif kennu tajjajila isa karra qulqullu ta'een ademsiserra						
416	bu'aan qorranno iffa siif godhame ture						
417	Kutaa itti ogeessi fayyaa tajaajila siif kenne haala salphaan argate						
418	Iddon wall'ansi godhamu ball'insa gahaa kan qabu fi illalchaf kan baredu dha						
419	Iddon wall'ansi godhamu qulqullu dha						
420	Kuttan qorrannon godhamu iffa gahaa fi ball'insa kan qabu dha						
421	Kuttan qorranno qulqullu dha						
422	Buffatinni fayyan qulqullu dha						
423	Buffatinni fayya iddo harka itti dhiqattan qabaa						
424	Buffatta fayya kessatti mana fincani tajjajilla kenu jiraa						
425	Tajaajila argachuuf yeroo teesse eegatte hamma eeggachuu qabdu ture						
426	yerroo turtti buffatta fayya kessatti godhe ajjajja naf godhame kan akka qorrano labratori,rajji fi altrasawundi argadherra						
427	yerroo turtti buffatta fayya kessatti godhe ajjajja naf godhame kan akka qoricha fi tajjaila wallansaf gargarra argadherra						
428	Haalli bulchiinsa isaa fi adeemsi kaardii baafachuuf godhamu gaarii ture						
429	Tajaajilli yeroo sii kenname addatti ture						
Gaffille arman gaddif eyyen yokkin miitti jechun debissi							
430	Warri kiyya fi hiriyyottini kiyya buffatta fayya kannatti dhufani tajjajila waa'ee ulfa argattan nan gorsa	1. eyyan 2. mitti					

Galatoomaa!

Appendix VII: Interview guidelines and questions for focus group discussion

The discussion will be open with presentation of the study.

Every participant of focus groups will present them self.

Started with general questions: What do you know about antenatal care services?

Additional questions:

- In what month woman should start to use antenatal care services?
- How many times during pregnancy antenatal care services are used?
- Are the pregnant woman should advised on where to go in case of complications?
- What should be the average waiting time for the service?
- Does notebook useful and give for pregnant woman?

Continue with another topic (areas of care clients satisfied) by asking a general question: How would you describe your satisfaction in the care you received?

Additional questions:

- Inter personal and communication:- does the health care provider introduce him/herself, polite, offer sit, hear carefully, ask your concern, Listening your complaints, easy to understand?
- Technical: - does the health care provider explained procedure before the examination started, gave opportunity to take part in decision, give you adequate information, gave you clear explanation
- Physical environment: - About laboratory service, Crowding in the clinic , waiting time , waiting area, toilet and hand washing facility

Continue with another topic (areas of care clients not satisfied) by asking a general question: How would you describe your dissatisfaction in the care you received?

Additional questions:

- Inter personal and communication:- does the health care provider introduce him/herself, polite, offer sit, hear carefully, ask your concern, Listening your complaints, easy to understand?
- Technical: - does the health care provider explained procedure before the examination started, gave opportunity to take part in decision, give you adequate information, gave you clear explanation
- Physical environment: - About laboratory service, Crowding in the clinic , waiting time , waiting area, toilet and hand washing facility

Continue with another topic (client's suggestion to make service satisfactory) by asking a general question: How would you suggest making services more satisfactory?

In the closing part of the discussion the participants will be exposed to some of the initial results (summry) of the discussion.
The discussion will be closed by asking the final comments from participants and finally by thanking them for participation and contribution.