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**ASSESSMENT OF CLIENT SATISFACTION ON QUALITY OF ANTENATAL  
CARE SERVICE PROVIDED TO PREGNANT WOMEN ATTENDING  
DEFENSE HOSPITALS, ADDIS ABABA, ETHIOPIA.**

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## **ABBREVIATIONS AND ACRONYMS**

<b>AIDS</b>	Acquired Immune Deficiency Syndrome
<b>AFTGH</b>	Armed Forces Teaching General Hospital
<b>ANC</b>	Antenatal Care
<b>DHS</b>	Demographic Health Survey
<b>EMOC</b>	Emergency Obstetric Care
<b>FANC</b>	Focus Antenatal Care
<b>FGD</b>	Focus Group Discussion
<b>FMOH</b>	Federal Ministry of Health
<b>FP</b>	Family planning
<b>HIV</b>	Human Immunodeficiency Virus
<b>JHPIEGO</b>	Johns Hopkins Program for International Education in Gynecology and Obstetrics
<b>MDG</b>	Millennium Development Goals
<b>MMR</b>	Maternal Mortality Ratio
<b>STI</b>	Sexually Transmitted Disease
<b>UNICEF</b>	United Nations International Children's Emergency Fund
<b>VDRL</b>	Venereal Disease Research Laboratory
<b>WHO</b>	World Health Organization
<b>WHO RCT</b>	World Health Organization Randomized Control Trial

## **ABSTRACT**

### **Background**

Maternal mortality occurs from risks attributable to pregnancy and child birth as well as from poor availability and quality of health services. ANC is the key entry point of a pregnant woman to receive quality health service, broad range of health promotion and preventive services which promote the health of the mother and the baby. The UN millennium Development goal (MDG<sub>5</sub>2000) aims to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015.

**Objective-** This study aimed on assessing the quality of antenatal care service provision at Defense Hospitals: Addis Ababa and Debrezeit.

**Methodology-** It was a cross sectional qualitative and quantitative study performed on the antenatal care attendees during the study period. Data collection was performed using structured questionnaire and focus group discussion with clients and facility observation checklist.

**Result-** Data on clients' satisfaction on quality of antenatal care were collected from 403 respondents. Findings indicated overall clients' satisfaction with respect to indicators of quality care was around 85.6%. The odds of satisfaction of women who got information on danger signs were about five times more than those who did not get the information [AOR (95% CI) 4.883(2.007-11.8800)].The qualitative study identified an imbalance regarding information provision between clients' expectation and received information and facility observation showed the presence of adequate material and human resource for providing antenatal care.

**Conclusion**– In general this study has revealed majority of the clients’ were satisfied with the service. Information provided to clients during the antenatal checkup was not as expected by the respondents. The facility observation checklist has revealed adequacy of available material and manpower to provide the necessary ANC.

**Recommendation**- The high satisfaction level from the antenatal care service in the health institutions should be sustained. The health care providers should be aware of the importance of meeting women’s information needs during antenatal visits and then be prepared to satisfy them by increasing their consultation time and mechanism of providing similar information to clients should be established and strengthen in both hospitals.

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# CHAPTER 1

## INTRODUCTION

### 1.1. BACKGROUND

Maternal mortality, the death of a woman while pregnant or within 42 days of termination of pregnancy, remains disturbingly high in sub-Saharan Africa [1]. It is estimated that 270 000 maternal deaths occurred in the region in 2005. The UN millennium Development goal (MDG<sub>5</sub>2000) on maternal health aims to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. To achieve this goal, it is estimated that an annual decline in maternal mortality of 5.5% is needed; however between 1990 and 2005 the annual decline was only 0.5% in the sub-Saharan region, compared to 4.2% for the middle income countries of Asia [1, 2].

Maternal mortality occurs from risks attributable to pregnancy and child birth as well as from poor availability and quality of health services. The most common causes of maternal mortality in sub-Saharan Africa include hemorrhage (34%), sepsis/infections (10%), hypertensive disorders (9%), HIV/AIDS (6%), and other direct causes (5%); other indirect causes contributed approximately 17% [1].

Experiences from different countries have shown that reducing maternal mortality may depend in part on the availability and use of a professional attendant at labour and delivery and a referral mechanism for obstetric care for managing complications, or the use of basic essential obstetric care facilities for all deliveries. In many developing countries however, the majority of births occur at home, frequently without the help of a skilled assistant (midwife, nurse trained as midwife or a doctor)[1].

ANC is the key entry point of a pregnant woman to receive broad range of health promotion and preventive services which promote the health of the mother and the baby [11].

## **1.2. PROBLEM STATEMENT**

The World Health Organization (WHO) estimates that worldwide more than 529,000 women die every year from complications of pregnancy, childbirth and abortion. Ninety nine percent (99%) of these deaths are from the developing countries. Less than 1% of these deaths occur in more developed countries making maternal mortality the health indicator with the greatest disparity between developed and developing countries [2, 11].

The situation is worst in sub-Saharan Africa where one in every 13 women dies of pregnancy related causes compared to only one in 4,085 women in developed countries [4]. Ethiopia is one of the countries in Sub-Saharan Africa which has been experiencing an increasing trend in Maternal Mortality Ratio (MMR). Although the recent 2010 Ethiopia Health and Health related indicators the MMR is 673 per 100,000 live births in the per 100,000 live births the figure remains one of the highest in sub-Saharan Africa and it is above the global average MMR of 400/100,000 live births [1,3].

The effect of antenatal care on maternal mortality is unclear. However, there is broad agreement that antenatal care interventions can lead to improved maternal and newborn health, which can also impact on the survival and health of the infant. Additionally, the ANC visit, which many women in sub-Saharan Africa attend, is an opportunity to reach pregnant women with messages and interventions [4, 16].

A global evaluation of antenatal care has resulted in the recommendation to deliver antenatal services in 4 focused visits (Focused antenatal care; FANC), one within the first trimester and 3

after quickening, and this schedule is now endorsed by WHO. Proven effective antenatal interventions include serologic screening for syphilis, provision of malaria prevention, anti-tetanus immunization, and prevention of mother-to-child transmission of HIV. To fully benefit from these interventions, it is important that women start visiting the antenatal clinic early in pregnancy. FANC emphasizes goal-oriented and women-centered care by skilled providers, whereby the quality instead of the quantity of visits is important [4].

In Ethiopia, like in many developing countries, the causes of maternal deaths are mainly attributed to the three delays; that is delay in seeking care (due to lack of transport, cultural beliefs etc), delay in reaching appropriate care (due to ineffective referral) and delay in receiving care due to inadequate skilled personnel in emergency obstetric care, inadequate supplies and equipment and poor quality of services. Additionally other determinants of high MMR in Ethiopia are high fertility and poor access to essential obstetric services [4].

Recent global evidence indicates that availability of Emergency obstetric care (EMOC) and skilled attendance at birth has proved to be one of the effective strategies to reduce maternal mortality [4, 14]. Wherever maternal mortality has significantly reduced, in developed and developing countries, the majority of deliveries were attended by skilled personnel [4].

In Ethiopia about 81.6 % of women continue to deliver without skilled attendant. Even- though the ANC shows 67.7% coverage which shows significant difference with the health facility delivery rate according to FMOH, health and health related indicators [5].

In recent years, many developing countries have been actively seeking to improve the outcomes of their health care delivery system by engaging in a process of reform. Subsequently, substantial efforts were made to improve the quality of care in the Defense health institutions.

Therefore the purpose of this study is to assess the quality of ANC at Defense Hospitals (AFGTH Addis Ababa and Air force Hospital Debrezeit) ; It facilitate our understanding of women's accessible to quality antenatal care services; and to describe common perinatal care practices that occur in these health care facilities. Therefore focus of the study is to identify gaps in the health delivery system in order to take measures and improve the overall outcome in maternal and neonatal survival.

### **1.3. SIGNIFICANCE OF THE STUDY**

Literature reviewed indicates high quality ANC is one of the service interventions that have a potential to impact on the high maternal mortality. In order to implement The UN millennium Development goal (MDG<sub>5</sub> 2000) on maternal health that aims to “reduce the number of women who die in pregnancy and childbirth by three-quarters” one way is provision of quality ANC. It is one of the service interventions that have a potential to bring a strong change on the high maternal mortality.

In most developing countries, the high turn up for antenatal services, could be used as an entry point for providing essential obstetric care and planning for deliveries. Even though few studies have addressed the issues of quality of ANC elsewhere in Ethiopia, more rigorous examinations of the quality of antenatal care are needed in order to identify specific problems and develop strategies to improve and reduce maternal mortality.

Therefore identification of the quality of this service will form a baseline data for improving quality ANC in the Defense Hospitals, findings of this study will provide new knowledge in the area of quality ANC and subsequently contributing to reduction of maternal mortality to the country.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1. DEFINITION OF QUALITY

Good quality means “doing the right thing right” quality in health care has been defined in many ways. From public health perspective, quality means offering the general health benefits, with the least health risk to the greater number of people, given the available resources. Also, good quality means either meeting minimal standards for adequate care or achieving high standard of excellence. Quality can refer to the technical quality of care to non technical aspects of service delivery such as client’s awaiting time and staff attitudes and to programmatic elements such as policies, infrastructures, access, and management [10].

Antenatal care is the ‘care before birth’ to promote the well-being of mother and fetus, and is essential to reduce maternal morbidity and mortality, low-weight births and perinatal mortality [11].

Quality of ANC depends on how women attend, initiate antenatal visits at a health facility. According to Data for the late 1990s and for 2000-2001 show that just over 70% of women worldwide have at least one antenatal visit with a skilled provider during pregnancy. In the industrialized countries coverage is extremely high, with 98% of women having at least one visit. In the developing world, antenatal care use is around 68% excluding China, but this indicates considerable success for programs aimed at making antenatal care available [12]. The region of the world with the lowest levels of use is South Asia, where only 54% of pregnant women have at least one antenatal care visit. In the Middle East and North Africa, use of antenatal care is somewhat higher at 65% of pregnant women. In sub-Saharan Africa, generally the region with

the lowest levels of health care use, fully 68% of women report at least one antenatal visit. The levels in the remaining regions of the world range from 82% to 86% [12].

UNICEF/WHO further stated that in Latin America, Caribbean, Middle East and North Africa the majority of women attend ANC at least 4 times in one pregnancy and two thirds of these women attend ANC in the first trimester. However, in sub-Saharan Africa, most women present for antenatal care in the second trimester and a relatively substantial proportion present only in the third trimester [13]. Although women in sub-Saharan Africa make their first antenatal visit rather late in pregnancy, they nonetheless tend to report more than one visit [12].

## **2.2. WHAT SHOULD ANTENATAL CARE CONSIST OF?**

In recent years, the underlying premise of much that is carried out under the heading of antenatal care has been called into question. It has emerged that few of the components of standard antenatal care regimens have been subjected to rigorous scientific evaluation to determine their effectiveness [12].

In 2001, WHO published the conclusions of a randomized controlled trial of a new model of antenatal care and also carried out a systematic review of other randomized trials that looked at the effectiveness of different models of antenatal care. This work has led to a growing consensus around key elements of antenatal care that are likely to improve maternal and/or perinatal health outcomes, though it is important to note that these outcomes tend to be either maternal and perinatal health or perinatal survival, not maternal survival[12].

The new WHO model of antenatal care separates pregnant women into two groups: those likely to need only routine antenatal care (some 75% of the total population of pregnant women), and those with specific health conditions or risk factors that necessitate special care (25% of pregnant

women). For the first group, a standard program of four antenatal visits is recommended (with additional visits should conditions emerge which require special care). The WHO guidelines are also specific as regards the timing and content of antenatal care visits according to gestational age. The guidelines stipulate that “only examinations and tests that serve an immediate purpose and that have been proven to be beneficial should be performed”. These examinations include measurement of blood pressure, testing of urine for bacteriuria and proteinuria, and blood tests to detect syphilis and severe anemia. Routine weight and height measurement at each visit is considered optional. But evidence based programming on the optimal number, timing and content of antenatal visits is not yet routine in most settings [12].

### **2.3. QUALITY ANTENATAL CARE**

The ‘clinical quality’ of antenatal care was measured by ever performance of essential physical examinations, tests and services by the provider (measurement of weight, height, blood pressure; urine and blood testing; abdomen examination; provision of iron/folic acid supplementation and tetanus toxoid immunization; and provision of information on nutrition, danger signs of pregnancy, delivery care, newborn care and family planning)[18].

An essential factor to consider when analyzing the quality of care of health facilities is the perspective of the client. For clients and communities, quality care is something that meets their perceived needs. Since a client's needs often differ, their personal satisfaction ultimately depends on the perception, attitude and expectations of each individual [19].

Despite its changing face, no one can argue that client satisfaction is unimportant. Patient satisfaction is a strong influencing factor in determining whether a person seeks medical advice, complies with treatments and maintains a relationship with the provider/health facility.

Ultimately, the dimensions of quality that relate to client satisfaction affect the health and well being of the community [19].

Over the past several decades, some have concluded that prenatal care offers no benefits, and indeed may be disadvantageous. In an extensive review, Fiscella found no conclusive evidence that prenatal care improved birth outcomes. Other authors raised concern about the effectiveness of prenatal care because in the 1980s and 1990s, when use of prenatal care increased substantively, the rates of low-birth weight and preterm birth increased in the United States according to Kogan and colleagues [14].

Conversely, Herbst and associates found that failure to obtain prenatal care was associated with more than a twofold increased risk of preterm birth. Vintzileos and colleagues analyzed data for the years 1995 to 1997 from the National Center for Health Statistics to measure the relationship between prenatal care and the risk of fetal death. They found that prenatal care was associated with an overall fetal death rate of 2.7 per 1000 compared with 14.1 per 1000 for women without prenatal care. Stated differently, failure to receive prenatal care increased the adjusted relative risk of stillbirth 3.3-fold. Vintzileos and colleagues later reported that prenatal care significantly lowered the rate of neonatal death associated with several high-risk conditions, including placenta previa, fetal growth restriction, and post term pregnancy. They also found that prenatal care was associated with fewer preterm births [14].

Indicators on use of antenatal care services provide no information on the content or quality of the services. Despite the broad consensus on what the content and quality should be, it is generally recognized that the antenatal care services currently provided in many parts of the world fail to meet the standards recommended by WHO. Some information on the content of care is now available from recent Demographic and Health Surveys (DHS) which included

questions about antenatal interventions such as height and weight checking, blood pressure testing, and blood and urine testing. For the most part, however, the available data do not report on specific interventions or the quality of care [12, 15].

WHO recommends that antenatal care for the majority of normal pregnancies should consist of four visits during pregnancy, and has outlined the key elements of the visits and the timing. The evidence on women who report at least four visits and compared the data on these women with the data on women reporting only one visit or none at all. Since the surveys do not specify the type of provider seen at each visit, but sum up all the providers seen throughout the pregnancy, it assessed only the total number of visits and whether a medically trained provider was seen on at least one visit [12].

Bearing in mind these limitations, the most striking finding is that in the developing world as a whole, the majority of women presenting for any antenatal care have at least four visits. In 33 of the 45 countries, at least 50% of women reported four or more visits. There are, of course, some notable exceptions; countries with relatively high percentages of women who received only one antenatal care visit include Bangladesh, Ethiopia, Morocco, Nepal and Yemen. The South Asian countries are distinguished by their overall low level of use. g In Nepal, for example, 38% of women reported at least one visit but only 9% reported four or more visits, with most women having two or three antenatal visits[12].

A key objective of maternal health care programs has been to ensure that women present for antenatal care early in pregnancy in order to allow enough time for essential diagnosis and treatment regimens such as treatment of STIs and management of anemia. Overall, this objective is being met: in Latin America and the Caribbean and in the Middle East and North Africa, two thirds of women present for antenatal care in the first trimester, while the figure for Asia is

nearly half. The exception is sub-Saharan Africa, where women presenting for antenatal care are most likely to wait until the second trimester and a relatively substantial proportion present only in the third trimester. Although women in sub-Saharan Africa make their first antenatal visit rather late in pregnancy, they nonetheless tend to report more than one visit [12].

Countries differ significantly on content of care. For example, only 6% of women in Rwanda were informed about danger signs compared with 83% in Colombia. The only countries where more than half of women received such information were Colombia, Malawi and Peru. On the other hand, at least half of all women in all the countries had their weight or blood pressure taken. Urine and blood samples were taken from only 4% and 8% of women in Rwanda. Under half of women had a blood or urine sample taken in Cambodia, Egypt, Ethiopia, Malawi, Nepal and Uganda. Although this represents only a small sample of countries, it indicates that more effort needs to be put into blood and urine testing to identify conditions such as pre-eclampsia, severe anemia and STIs [12].

In the Middle East and North Africa, antenatal care and delivery care move consistently together. Neither in Asia nor in Latin America and the Caribbean does there appear to be a consistent pattern in the two variables. In sub-Saharan Africa, by contrast, the levels for antenatal care use are consistently higher than the levels for skilled attendant at delivery. This would appear to indicate that antenatal care is less effective in sub-Saharan Africa in getting women to use skilled attendance at delivery. There are many possible reasons for this, including the fact that women in sub-Saharan Africa are far less likely to have been in contact with a doctor during antenatal care [12].

It is also possible that maternal health programs in this region have tended to focus on antenatal care to the detriment of delivery care or care for the management of obstetric complications.

Interestingly, this is the region with the highest levels of maternal mortality. Antenatal care has the potential to serve as a strategy for increasing use of a skilled health care provider at delivery. These skilled attendants – doctors, nurses, midwives – are the providers of obstetric care for complications, though clearly they need the necessary backup, equipment and supplies if they are to function effectively [12].

Recent trends in use of antenatal care in developing countries during the 1990s show striking improvements, increasing by some 20% overall. In sub-Saharan Africa, by contrast, antenatal care use has changed hardly at all over the decade although levels are relatively high compared with Asia. The greatest improvements were in Asia, largely as a result of rapid changes in a few large countries such as Indonesia. However, significant increases also took place in Latin America and the Caribbean, although this region already had relatively high levels for antenatal care [12].

Despite this progress, disparities in access between urban and rural areas remain significant, especially in Bolivia, Brazil, Egypt, Ethiopia, Haiti, Guinea, Mali, Mozambique, Paraguay, Peru and Yemen. While physical remoteness and inaccessibility surely play a part in these disparities, they are unlikely to provide the whole story [12].

Although Ethiopia has succeeded in improving some key indicators such as family planning and expanding its overall health-service coverage, maternal mortality is very high at 673 per 100 000 live births, and the level of institutional delivery – estimated to be 18.4% of births – remains one of the lowest in the world [5, 12].

Since the aim of ANC is to assist women to remain healthy, finding and correcting adverse conditions when present, and thus aid the health of the unborn. ANC should also provide support and guidance to the woman and her partner or family, to help them in their transition to

parenthood. This implies that both health care and health education are required from health services [16]. A recent WHO multi-center randomized controlled trial found that a new model with a reduced number of high quality antenatal visits during pregnancy did not result in worse maternal or perinatal outcomes than standard antenatal care [17].

#### **2.4. CONCEPTUAL FRAMEWORK FOR QUALITY ANTENATAL CARE**

Mostly quality is evaluated based on the popular model, Donabedian's tripartite model of quality.

This model evaluates three domains:

1. Structure - refers to the conditions under which care is provided. Structural attributes in this study included; infrastructure, human resources (number, variety, qualification of professionals) and material resources.
2. Process - refers to activities that constitute health care and interaction between client and care giver.
3. Outcome - outcome quality of care according to Donabedians means changes (desirable or undesirable) in individuals and population that can be attributed to the health care given. Outcomes in this study means clients' satisfaction to the care received at the health facilities.

The major variables to assess structure, process and outcome are listed in boxes; all variables have direct or indirect influence on client's satisfaction on the service.

## Schematic presentation of conceptual frame work

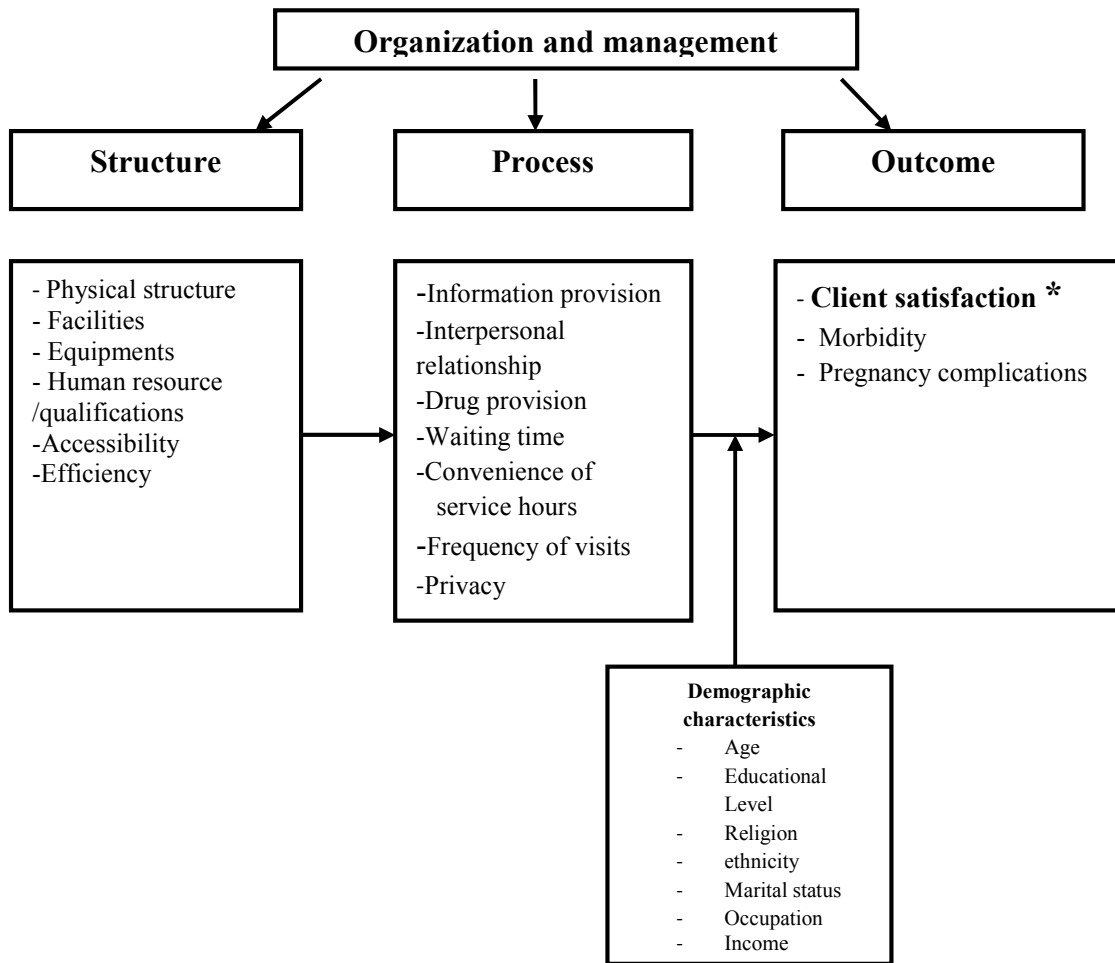


Figure 1: A Modified Conceptual Framework of Quality care and its attributes adapted from Donabedian 1979

## **CHAPTER 3**

### **OBJECTIVE OF THE STUDY**

#### **3.1. GENERAL OBJECTIVE:**

The objective of this study is to assess the quality of antenatal care service provision at Defense Hospitals; Addis Ababa and Debrezeit.

#### **3.2. SPECIFIC OBJECTIVES:**

1. To identify availability of necessary resources (human & material) for providing ANC service in Defense Hospitals.
2. To identify factors related to clients satisfaction on ANC service.
3. To explore client's satisfaction level on the quality of antenatal service received.

## **CHAPTER 4**

### **METHOD AND MATERIALS**

#### **4.1. STUDY AREA AND PERIOD:**

This study was conducted in Defense Hospitals (AFTGH and Air force Hospital). Armed Forces Teaching General Hospital is the major referral and teaching hospital of the Defense Forces found in Addis Ababa which provides service for the military staff, their family members and civilians working in the defense institution throughout the country. Air force hospital is also the other hospital under the Defense Forces found in Debrezeit town 45 kilometers away to south of Addis Ababa, It gives service mainly for the Air force members and other ground force military staff, their family members, and civilian defense employees working and living around Debrezeit. Both hospitals have maternal and child health care units that render ANC, delivery service, family planning and other related services. The study was conducted from October 2010 to April 2011.

#### **4.2. STUDY DESIGN:**

Descriptive cross-sectional institution based quantitative and qualitative study was conducted to assess the quality of antenatal care service provision at Defense Hospitals.

#### **4.3. STUDY AND SOURCE POPULATION:**

**4.3.1. SOURCE POPULATION:** All pregnant women in Defense Hospitals (AFGTH & Air force Hospitals) were source of population in this study.

**4.3.2. STUDY POPULATION:** All antenatal care attendees during the study period in Defense Hospitals.

**4.3.2.1. INCLUSION CRITERIA:** Antenatal clinic attendees, who were able to communicate, mentally clear and voluntary to participate were included.

**4.3.2.2. EXCLUSION CRITERIA:** Antenatal clinic attendees not volunteer to participate in the study and who were critically sick during the study period.

**4.3.3. SAMPLE SIZE:** The required sample size was determined by using single population proportion formula:

Where n = maximum sample size

Z = standard normal distribution curve value for 95% CI which is 1.96 (where  $\alpha = 0.05$ )

P = Proportion of 50% of antenatal clients would be satisfied of the service because of the absence of similar study in the defense hospitals and this also provides adequate sample size.

d= tolerable margin of sampling error = 0.05

$$n = \frac{(Z_{\alpha/2})^2 P (1-P)}{d^2}$$
$$n = \frac{(1.96)^2 (0.5) (1-0.5)}{(0.05)^2}$$

$$n = \frac{3.8416 \times 0.25}{0.0025} = \frac{0.9604}{0.0025}$$

$$n = 384$$

$$384 + 19(5\% \text{ non-response rate}) = 403$$

The sample size for each hospital was determined based on probability proportional to size; as a result 403 clients are involved in this study.

**4.3.4. SAMPLING TECHNIQUE:** Convenient sampling technique was used to collect the information from the antenatal clinic attendees during the study period, until it suffices the calculated sample size.

#### **4.4. DATA COLLECTION INSTRUMENT:**

A structured questionnaire and Focus Group Discussion (FGD) guideline prepared to assess clients' perception. Additionally a standard check list used to assess the available human and material resource in the facility. The questionnaire was prepared in a structured way in English and translated into Amharic and Oromofa (local language of Debrezeit) then to English to see its consistency. The structured questionnaire was adapted from the validated questionnaire used for a WHO study on the old and new models of antenatal care. The questionnaire contained 28 items divided into two sections on socio-demographic characteristics of clients, and section two contained frequency and spacing of visits, technical quality of care, and continuity of care mechanisms, client-provider interpersonal relationships and summary. To assess women's overall satisfaction with the quality of antenatal care, the summary section of the questionnaire contained two indicators employed by WHO to summarize women's overall perception in the antenatal care trial. These indicators included one direct and other indirect summary questions asked against the background of women's responses to previous enquiries on the various aspects of antenatal care quality. It was expected that this "overall satisfaction" variable would reflect women's overall perception of the quality of antenatal care received. This variable was determined by respondents' affirmative answers to these two questions: "in general, how satisfied are you with antenatal care you have received so far in this clinic?", and "if you were pregnant again, would you come back to this clinic?" For the purpose of this study, an

affirmative answer to these questions by respondent was considered an index of true satisfaction with the quality of antenatal care received (satisfaction index).

**4.4.1. DATA COLLECTION PROCEDURE:** Respondents were requested to fill a structured self administered questionnaire after they finished their antenatal examination. The data was collected by the trained data collectors on antenatal clinic days (Monday-Saturday) at the respective hospitals. Completed questionnaires were scrutinized on the spot and at the end of daily field sessions for immediate correction of incorrect entry.

#### **4.5. Variables:**

**4.5.1. DEPENDENT VARIABLES:** clients' satisfaction

**4.5.2. INDEPENDENT VARIABLES:**

- Outcome variable: Quality antenatal care
- Process variables: Interpersonal relationship, Information provision, convenience of clinic hours, waiting time, Privacy
- Structure variables: clinical environment, distance, equipments, human resource.
- Socio demographic variables: age, religion, ethnicity, marital status, educational level, occupation, income.

#### 4.6. OPERATIONAL DEFINITIONS:

**Quality** – quality is multidimensional concept but in this study quality is measured in terms of fulfillment of structure, process and outcome based on clients satisfaction with the ANC received.

**Quality antenatal care** – quality antenatal care implies the extent to which antenatal care resources and services correspond with antenatal standard of a particular country. In this study basic components of quality antenatal care was compared with the WHO standards of antenatal care and explained in the Ethiopian PMTCT guideline. Indicators which are used to measure quality of antenatal care in this study include available infrastructure, materials and supplies for providing ANC, the timing and basic components of antenatal visits by pregnant women, the health services provided during ANC visits and perception of the quality of ANC by the pregnant mothers.

**Antenatal care** – The care given to pregnant women during pregnancy by health professionals (doctor, health officer, midwife or nurse).

**Client satisfaction** – The overall perception and satisfaction of the client toward the received antenatal care. Client satisfaction is measured based on the summary questions kept as indicators in the WHO RCT (24), to summarize the overall perception by clients. These questions include; “if you were pregnant again, would you come back to this health center?” and “in general, how satisfied are you with the antenatal care you have received so far in the health institution?” Affirmative answer to these questions in this study is considered as a true satisfaction that the care they have taken have a good quality.

#### **4.7. DATA QUALITY:**

Pretest of data collection instrument done on 10% of the sample size pregnant women attending at Gandhi Memorial Hospital antenatal clinic before the actual data collection period to check for the appropriateness and reliability.

#### **4.8. DATA PROCESSING AND ANALYSIS:**

After data collection, each questionnaire was checked for completeness. Data entry, data cleaning, coding and analysis were performed using SPSS version 15 soft ware package. Computing frequencies and summary statistics (mean, standard deviation, and percentage) was used to describe the study population in relation to relevant variables. Frequencies and measures of variations were used to describe the study population in relation to socio-demographic and other relevant variables. The degree of association between independent and dependent variables was assessed using logistic regression test, with 95% confidence interval and in addition p-value less than 0.05 are taken as statistically significant.

**4.9. ETHICAL CONSIDERATION:** Ethical clearance was secured from Addis Ababa University College of Health Sciences Department of Nursing and Midwifery. Official letter was written to the respective Institutions (hospitals). Informed written and verbal consent was obtained from the study participants after explaining the purpose and procedure of the study.

**4.10. DISSEMINATION OF STUDY FINDINGS:** The study result will be submitted to Addis Ababa University College of Health Sciences Department of Nursing and Midwifery as a partial fulfillment of Masters Degree in Reproductive and Maternity Nursing and to the respective health authorities of the AFGTH and Debrezeit Air

Force Hospital. It will be also submitted to FMOH family health department and professional societies, Ethiopian Midwifery Society and Ethiopian Nurses Association. Finally the study will be sent for publication as peer reviewed journals.

## **CHAPTER 5**

### **RESULT**

#### **5.1. QUANTITATIVE RESULT**

A total of 403 women consented and participated in the study: 363 participants from Bela hospital and 40 from Air Force hospital were taken until it suffice the required amount. Thus, the response rate for the study was 100%.

#### **Socio-demographic Characteristics of Women Receiving Antenatal Service**

The socio-demographic characteristics of respondents of both Hospitals are presented in Table 1. Majority of the respondents (95.5%) were married, within the active reproductive age groups (16-40 years) the mean age of respondents was 27.46 years (S.D 4.07). The majority of respondents (45.4%) were from Amhara ethnic group. Approximately one-third of the respondents (34.5%) were expecting their first child. About one-third of the respondents (32.8%) were housewives and the same proportions were government employees. Among respondents of income question one-third (33.6%) of the respondents earn less than 1000 Birr monthly. Almost half of the respondents (46.2%) have had an educational status of secondary school.

**Table 1: Socio-Demographic characteristics of respondents, Defense Hospitals, 2011 (n=403)**

<b>S. No</b>	<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
<b>1</b>	<b>Age category</b>		
	16-20	7	1.9
	21-25	114	31.1
	26-30	168	45.8
	31-35	65	17.7
	36-40	13	3.5
	Missing	36	
	*Mean age 27.46 years (S.D 4.07)		
<b>2</b>	<b>Educational status</b>		
	- Read and write	43	10.6
	- Primary school	67	16.6
	- Secondary school	186	46.2
	- Post secondary	107	26.6
<b>3</b>	<b>Ethnicity</b>		
	- Amhara	183	45.4
	- Oromo	72	17.9
	- Tigre	127	31.5
	- Southern nations and nationalities	20	5.0
	- Others	1	.2
<b>4</b>	<b>Marital status</b>		
	- Married	385	95.5
	- Single	13	3.2
	- Divorced	4	1.0
	- Widowed	1	.3
<b>5</b>	<b>Occupation</b>		
	- House wife	132	32.8
	- Government employee	131	32.5
	- Merchant	55	13.6
	- Non-Government employee	85	21.1
<b>6</b>	<b>Income</b>		
	250-1000	101	33.6
	1001-1750	77	25.5
	1751-2500	71	23.6
	2501-3250	37	12.3
	3251-4000	10	3.3
	_4001	5	1.7
	Missing	101	
<b>7</b>	<b>Number of children</b>		
	0(no)	139	34.5
	1	121	30.0
	2	100	24.8
	3	35	8.7
	4	8	2.0

Table 2. More than half of the women were concurrently receiving antenatal care at the facilities for the first and second time (First visit (26.8%) & second time (33.7%)).

**Table2: Number of times Women received ANC, Defense Hospitals, 2011 (n =403)**

<b>Number of visits</b>	<b>Frequency</b>	<b>Percent</b>
First visit	108	26.8
Second visit	136	33.7
Third	86	21.3
More than 3visits	73	18.1
Total	403	100.0

### **Antenatal Education**

Table 3. Survey findings indicated that about 90.5% of women were told about danger signs during their antenatal visit. About 86.8% were educated on how they take care of their own health during pregnancy and 78.7% were told about the danger of drugs and alcohol consumption during pregnancy.

**Table 3: Percentage of women who received Information on Various Topics during Antenatal check-up, Defense Hospitals, 2011. (n = 403)**

<b>Information</b>	<b>Frequency &amp; Percent</b>		
	<b>Yes (%)</b>	<b>No (%)</b>	<b>Total</b>
Danger of drug and Alcohol use	317 (78.7)	86 (21.3)	403 (100.0)
How to take care of own health during pregnancy	350 (86.8)	53 (13.2)	403 (100.0)
Danger Signs during pregnancy	365(90.5)	38(9.5)	403 (100.0)

Table 4. For the information question on taking care of own health majority of respondents (70.9%) have accessed information about labor, breastfeeding and place of birth. Others 5.4 % received information about HIV testing, nutrition, rest and how to lie down. The missing figures were for women who could not remember the type of education they got during their visit.

**Table 4: Type of Information on how to take care of own health during pregnancy, Defense Hospitals, 2011. (n = 350)**

<b>Type of information provided</b>	<b>Frequency</b>	<b>Percent</b>
About labor	121	34.6
place of birth	61	17.4
Postnatal	45	12.9
breast feeding	66	18.9
labor and place of birth	1	.3
labor, place of birth, postnatal and breastfeeding	18	5.1
labor and breastfeeding	4	1.1
place of birth and breastfeeding	2	.6
postnatal and breastfeeding	6	1.7
labor, place of birth, postnatal, breastfeeding and others	5	1.4
postnatal and others	2	.6
Others( HIV, nutrition, how to lie down, rest)	19	5.4
Total	350	100.0
Missing system	53	
Total	403	

Table 5. Shows the proportion of the respondents who reported they were provided with information on danger signs during pregnancy. Overall, at least 58.4% have received information on hemorrhage, about 16.5% received information on hemorrhage, rupture of membranes, high fever and dizziness and fainting. Other 6.8% on rupture of membranes and high fever, and 5.5% got information on danger of high fever. The missing figures were for women who could not remember the type of education they got during their visit.

**Table 5: Information on recognition of danger symptoms/signs in pregnancy, Defense Hospitals, 2011. (n = 365)**

<b>Danger symptoms/signs</b>	<b>Frequency</b>	<b>Percent</b>
Hemorrhage	213	58.4
Rupture of membranes	25	6.8
High fever	20	5.5
Dizziness and fainting	7	1.9
Hemorrhage & Ruptured membrane	2	.5
Hemorrhage, rupture of membranes & high fever	3	.8
hemorrhage and high fever	3	.8
hemorrhage, high fever and dizziness and fainting	5	1.4
hemorrhage, rupture of membranes, high fever and dizziness	60	16.5
others ( cessation of fetal movement, edema)	27	7.4
Total	365	100.0
Missing system	38	
Total	403	

### Antenatal Drugs and Vaccines

Table 6: The survey revealed more women received iron and ant-tetanus vaccine during their antenatal visit in the recent pregnancy. Majority 43.1% have received Iron and other 26.6 % had received TTV. About 14.1 % have received both TTV and Iron, 12.3 % have taken Antihypertensive drug and others have taken Antibiotics and vitamins. The missing figures were for women who did not receive any drug during the antenatal checkup.

**Table 6: Percentage of women who received different drugs during antenatal visit, Defense Hospitals,2011. (n =334)**

<b>Drug</b>	<b>Frequency</b>	<b>Percent</b>
TT Vaccine	89	26.6
Iron	144	43.1
Antihypertensive	41	12.3
vaccine & iron	47	14.1
vaccine, iron & antihypertensive	1	.3
Others (Antibiotics & vitamins)	12	3.6
Total	334	100.0
Missing system	69	
Total	403	

Table 7: shows the majority of respondents (91.6%) are satisfied with the convenience of working hours and 89.6% are satisfied with the service received from the hospitals. An approximately the same proportion 88.1 % wish to come back again if they become pregnant again.

**Table 7: Proportion of clients who expressed satisfaction with the antenatal care they received, Defense hospitals, 2011.**

<b>Measure of satisfaction</b>	<b>403 (%)</b>
Convenience of working hours	369 (91.6)
Asked about problems	355 (89.4)
Providers patience to listen while telling their problem	367 (91.9)
Physical examination done	344 (85.4)
Satisfaction with the service	361 (89.6)
Wish to come back again	355 (88.1)

As indicated on Table 8, association of Clients' satisfaction in relation to women preference of health care provider found to be predictor of clients satisfaction towards quality of antenatal care. Women who preferred male provider were less likely satisfied than women who were not having special preference on provider [AOR (95% CI) .401(.170-.943)].

In crude analysis waiting time found to be significant for clients satisfaction on the antenatal care. Women who waited for minutes only were more likely satisfied when compared to those who do not remember their waiting time [COR (95% CI) 3.141(1.299-7.593) but no significant association when adjusted for possible confounder. On convenience of working hour women who were comfortable with the time were five times satisfied than those who were not happy with the convenience of working hour [AOR (95% CI) 5.150(2.057-12.897)].

Women who were asked about one's own health problem during antenatal check-up were more likely satisfied than those who were not asked about problems [COR (95% CI) 2.508 (1.177-5.346)]. For the privacy question women who replied their privacy has been protected were three times satisfied than those who said their privacy was not protected [AOR (95% CI) 3.222(1.589-6.533)].

Concerning the information provision on looking after own health during pregnancy women who received information during their visit were more likely satisfied than those who doesn't get the information [COR (95% CI) 2.362(1.276-4.372)]. For the other information question about hazards of consumption of drugs and alcohol during pregnancy women who have been told were more satisfied than those women who were not informed [COR (95% CI) 2.523(1.383-4.602)]. In addition the odds of satisfaction of women who got information on danger signs were about five times more than those who did not get the information [AOR (95% CI) 4.883(2.007-11.8800)].

Women who performed physical examination were more likely satisfied than those women who don't have physical examination during their visit [AOR (95% CI) 2.685(1.203-5.993)].

The odds of women who received prescribed medicine during their antenatal visit showed twice greater satisfaction than those who didn't get prescribed medicine [COR (95% CI) 2.205(1.180-4.121)]. In addition women who were given appointment for the next visit were more than five point five times satisfied than those who were not given appointment [COR (95% CI) 5.571(1.802-17.227)].

Table 8: Selected independent variables in relation to clients' satisfaction, Defense Hospitals, 2011.

Variables	n%	Client satisfaction		COR (95% CI)	AOR (95% CI)
		Satisfied	Not satisfied		
<b>Preference of health provider</b>					
Male	67(16.7)	53(13.2)	14(3.5)	<b>.469(.233-.946)*</b> .517(.248-1.078) 1	<b>.401(.170-.943)*</b> .439(.184-1.047)
Female	62(15.5)	50(12.5)	12(3.0)		
No special preference	272 (67.8)	242(60.3)	30(7.5)		
<b>waiting time</b>					
minutes	219(54.3)	201(49.9)	18(4.5)	<b>3.141(1.299-7.593)*</b> 3.556(.439-2.353) 1	2.514(.832-7.593) 1.479(.503-4.350)
hours	143(35.5)	112(27.8)	31(7.7)		
don't remember	41(10.2)	32(7.9)	9(2.2)		
<b>Convenience of working hours</b>					
Yes	369(91.6)	326(80.9)	43(10.7)	<b>5.985(2.833-12.65)*</b> 1	<b>5.150(2.057-12.897)*</b>
No	34(8.4)	19(4.7)	15(3.7)		
<b>Asked about problems</b>					
Yes	355(89.4)	311(78.3)	44(11.1)	<b>2.508(1.177-5.346)*</b> 1	1.491(.600-3.706)
No	42(10.6)	31(7.8)	11(2.8)		
<b>Privacy</b>					
Yes	286(71.0)	256(63.5)	30(7.4)	<b>2.685(1.520-4.741)*</b> 1	<b>3.222(1.589-6.533)*</b>
No	117(29.0)	89(22.1)	28(6.9)		
<b>Received information on looking after own health during pregnancy</b>					
Yes	325(80.6)	286(71.0)	39(9.7)	<b>2.362(1.276-4.372)*</b> 1	.886(.370-2.122)
No	78(19.4)	59(14.6)	19(4.7)		
<b>Got information on hazard of drugs and alcohol during pregnancy</b>					
Yes	317(79.1)	280(69.8)	37(9.2)	<b>2.523(1.383-4.602)*</b> 1	1.521(.658-3.516)
No	84(20.9)	63(15.7)	21(5.2)		
<b>Received information on danger signs</b>					
Yes	363(90.1)	324(80.4)	39(9.7)	<b>7.516(3.718-15.195)*</b> 1	<b>4.883(2.007-11.880)*</b>
No	40(9.9)	21(5.2)	19(6.1)		
<b>Physical examination done</b>					
Yes	344(85.4)	305(75.7)	39(9.7)	<b>3.715(1.959-7.043)*</b> 1	<b>2.685(1.203-5.993)*</b>
No	59(14.6)	40(9.9)	19(4.7)		
<b>Prescribed medication during pregnancy</b>					
Yes	322(80.3)	284(70.8)	38(9.5)	<b>2.205(1.180-4.121)*</b> 1	1.495(.663-3.373)
No	79(19.7)	61(15.2)	18(4.5)		
<b>Appointment given</b>					
Yes	390(96.8)	338(83.9)	52(12.9)	<b>5.571(1.802-17.227)*</b> 1	3.301(.654-16.674)
No	13(3.2)	7(1.7)	6(1.5)		

## **5.2. QUALITATIVE RESULT**

### **5.2.1. Focus Group Discussion result**

The Focus Group Discussions were conducted on the antenatal attendees by the investigator using a guide designed to elicit the women's perception regarding antenatal care provided at the hospitals. The opinion of clients on "what women need during pregnancy" three of the participants mentioned their idea by saying

*....women needs to have regular antenatal checkup in order to deliver a healthy baby and to be healthy, to get balanced diet, and to have adequate rest.*

One woman has also mentioned .... *HIV testing with partner is important even before getting pregnant.*

For the question about their preference of health care provider in relation to gender and qualification all the respondents mentioned that,

*....we doesn't know about the qualification of each health worker, but concerning gender we have no choice since they give us the appropriate service.*

One of the respondents said....*I prefer to be examined by male health care provider since they show sympathy, most of the time female health care providers are not treating well.*

Concerning the number of visits they received from the health institutions most of them have suggested,

*....It was good to have regular appointment as it was given before rather than four times during the whole pregnancy.*

On the other hand one woman said ...*If a woman is healthy and has no problem the appointment given now is enough, they have also told us to come back if any problem arises.*

Concerning information provision most of them prefer to get adequate information .most of the respondents have stated the following:

*...when we come to the health institution we need to know about our own health, growth and position of the fetus, any abnormal situation and about labor and delivery. Information on these issues can help us to be prepared.*

Though, the information given by the health care providers' was assumed to be inadequate two of the respondents have appreciated the information provided during their visit by saying

*...we can't say we have received adequate information as needed, but some of the information we received such as the advantage of balanced diet, importance of rest during pregnancy and how to lie down has helped us a lot.*

They have also mentioned the health care providers approach was appropriate and attractive. Additionally all respondents have stated that,

*... When we come for follow ups we need to be treated with respect and empathy.*

For the question about "the like and dislike about the service they received from the health institutions" one respondent has mentioned some examples and supported by the others.

*...there is nothing to mention a situation offended me but I was happy when I have received different examinations like ultrasound so fast on my first visit without any appointment.*

Finally the respondents were asked to define on their view "what an ideal antenatal care is?" and they have described it that:

*... An ideal antenatal care is a clinic which is accessible/near, has adequate professionals, necessary material, and gives basic information to the pregnant women during their visit.*

### **5.2.2. Observation on functional capacity of the health institutions**

Quality of service involves the infrastructure, management aspect and availability of resources. So that the antenatal care service delivery points were observed that are felt to be crucial to its capacity to function effectively, and that may influence the quality of care provided.

**Infrastructure** - The waiting areas of clients have adequate sits and are protected from sun, rain and wind even though sometimes there was crowd when sits were occupied with those who come for laboratory and ultrasound examination especially at Bela hospital. The toilets in both hospitals were in good sanitation. There are adequate examination couches in both hospitals, with adequate natural lighting. But there is lack of hand washing access because the pipes were not functioning.

#### **Material and human resources**

The service delivery points have registration books for registering revisits and new clients. Other important medical equipments are available such as BP apparatus, stethoscope, weight scale, fetal stethoscope and other basic materials. Important drugs and examinations/investigations needed for attending pregnant women were also available. The hospitals implemented appropriate infection prevention procedures and they provided the necessary materials. Both hospitals are following the WHO recommendation focus antenatal care procedure, only there is no guideline or chart on emergency focus antenatal care and birth preparedness and complication readiness. Concerning health care providers there were adequate health care professionals (Gynecologists, Health officers, midwives, and nurses) and auxiliary workers at the antenatal clinics in this setting.

## **CHAPTER 6**

### **DISCUSSION**

This study has tried to assess the quality of ANC service in Defense hospitals. Analysis of overall clients' satisfaction with respect to indicators of quality care, taking the affirmative answers for the indicator questions revealed that around 85.6% of the clients were satisfied with the antenatal care they received. Similarly a study conducted in Adama town on quality of ANC service indicated 91.7% of the clients were satisfied [20].

Another similar study done in Addis Ababa Health centers on assessment of quality of antenatal care showed 89% satisfaction and the study finding was similar to this study [21]. Overall a study on assessment of women satisfaction conducted by WHO in four developing countries also indicated about 90% of the clients were satisfied with the service they received [22]. This high satisfaction level may be due to subjective nature of the issue or may be due to lack of knowledge of what service is provided during antenatal care by the clients.

The finding of logistic regression analyses of this study revealed multiple variables have showed significant association with satisfaction of respondents with the service. Among these clients' preference of health care provider showed a weak association in which women who preferred male health care provider were 0.4 times less likely satisfied than those who have no special preference[AOR (95% CI) .401(.170-.943)]. This could be justified that women interest is on the appropriate care they get rather than the sex of the health care provider.

Concerning convenience of working hours women who were comfortable with the time were five times satisfied than those who were not happy with the convenience of working hour [AOR (95% CI) 5.150(2.057-12.897)].

On the other hand lack of privacy has showed significant association with clients' satisfaction, respondents whose privacy was protected were three time more satisfied than those who lacked privacy during examination [AOR (95% CI) 3.222(1.589-6.533)]. This lack of privacy might have come from the presence of large number of students at the time of antenatal examination, which might have created inconvenience to the clients.

One of the most important components of antenatal care is to offer information and advice to women about pregnancy related complications and possible curative measures for early detection and management of complications (25). In relation to information provision women who were informed about danger signs were about five times more likely to be satisfied than those who had no information about danger signs[AOR (95% CI) 4.883(2.007-11.8800)]. Similarly the study conducted in south West Nigeria showed 85.6% of respondents were satisfied with the information they received during their antenatal visit [23]. This shows that if clients are given adequate health information, they will be more attracted to use the health service and they will be more concerned about their health.

On this study clients' who performed physical examination were about three times more likely satisfied than those women who don't have physical examination during their visit [AOR (95% CI) 2.685(1.203-5.993)]. The performance of physical examination can have great input on clients' satisfaction and clients feel comfortable assuming that they are well taken the care and their problems can be identified.

Similar observation studies conducted in Malawi and Nigeria revealed that the quality of ANC in most public health facilities is compromised by lack of necessary equipment and resources [6, 23]. But, in the contrary according to the qualitative study findings of facility observation checklist there was no shortage of material resources for providing ANC at the study health

institutions. The hospitals have no shortage of vital equipment and supplies like sphygmomanometer, stethoscope, weight scale, and reagents for VDRL, urine testing, and drugs for providing in ANC.

In terms of the number of visits and spacing, the study showed that women were generally pleased. Some clients also reported inadequacy of appointment given during FGDs in the study. In general, the overall findings of this study showed high level of satisfaction among women, considering the fact that the two satisfaction questions were positively replied by large proportion of women. However, it should be noted that respondents are often inclined to respond positively to questions on satisfaction with the care received, especially when asked within clinical settings, as is systematically noted in research on perceived quality or satisfaction.

## **CHAPTER 7**

### **CONCLUSION**

In general this study has indicated that majority of clients were satisfied with the service, even though, their satisfaction elements of quality were varied. Since satisfaction is a qualitative indicator of quality of cares that represent the needs preferences and previous experience of clients.

On the other hand client and provider relationship was satisfactory, even if quarter of the clients responded lack of privacy during examination. Additionally, the study has identified an imbalance between clients' expectation and received information about their health and the pregnancy during their antenatal visit.

The facility and health care provider checklist has revealed that the health institutions have adequate basic infra structure and medical equipments but, both hospitals lack access for hand washing in the examination rooms (the sinks not functioning). Even though both hospitals follow the WHO recommended focus antenatal care (FANC) procedure, there was no guideline or chart on focus antenatal care and birth preparedness and complication readiness. Otherwise the way the institutions follow to identify clients' opinion (paper which is filled to identify clients' suggestion about the care received) seems a good way to improve the quality of care provided.

## **CHAPTER 8**

### **RECOMMENDATION**

Basing on the findings of the study the following recommendations are made:

- The satisfaction from the antenatal care service in the health institutions is encouraging and appreciated and should be sustained.
- Mechanism of providing similar information to clients should be established and strengthen.
- Providers should be aware of the importance of meeting women's information needs during antenatal visits and then be prepared to satisfy them by increasing their consultation time.
- Appropriate system has to be established and implemented to protect clients' privacy during examination.
- The access of hand washing in the examination rooms needs to be improved/ maintained.
- Make the necessary focus antenatal application and birth preparedness and complication readiness information charts available in the antenatal care unit.
- Further in-service training of providers is helpful.
- The system which involves clients in providing ideas to improve the quality of care should be continued.

#### **Strength and limitation of the study:**

**Strength** - The study used qualitative and data collection techniques to obtain data on different aspects of quality of care.

**Limitation** - Since it was a cross sectional study conducted in a limited time and limited area (Defense hospitals) finding cannot be generalized to other setting.

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## ANNEXES

### ANNEX I: INFORMATION SHEET

**Addis Ababa University College of Health Science**

**Department of Nursing and midwifery**

**Questionnaire on Assessment on Quality of Antenatal Care Service in Defense Hospitals  
(Addis Ababa and Debrezeit)**

**To be filled by data collectors**

**Code of the health institution \_\_\_\_\_**

Hello! My name is(Name of the data collector-)-----.. We are conducting health research on Assessment on Quality of Antenatal Care Service in Defense Hospitals (Armed Forces General Teaching Hospital and Air force Hospital) Addis Ababa and Debrezeit. The purpose of this study is to assess Quality of Antenatal Care Service in Defense Hospitals (Addis Ababa and Debrezeit). This is beneficial to identify areas of improvement in the quality of services offered and highlighting the need for corrective actions. By doing this we will provide sufficient information for policy makers, clinicians so that they could make informed decision.

In order to attain this goal, you are kindly requested to provide your genuine response on the questions given below. I would like to confirm 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 responses will be held in strict confidence. Your privacy will also be protected and no one will know your answer. If you do not wish to participate, it will not affect the services you receive at the clinic now or in the future.

I also request you to answer it candidly 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:

*Senait fisseha* Mobile phone: +251-911-47-69-23

Are you willing to participate?

If the answer is Yes, - continue

NO ----- Thanks her

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## **ANNEX II. CONSENT FORM**

In signing this document, I am giving my consent to participate in the study entitled “Assessment on Quality of Antenatal Care Service in Defense Hospitals (Addis Ababa and Debrezeit)”

I have been informed that the purpose of this particular research project is to assess the Quality of Antenatal Care Service in Defense Hospitals (Addis Ababa and Debrezeit).

I have been informed that I am going to respond to this question by answering what I know concerning the issue. I am also informed that the information I give will be used only for the purpose of this study; my identity, the information I give will be treated confidentially. I have also been informed that I can refuse to participate in the study or not to respond to questions if I am not interested. Furthermore I have been informed that I can stop responding to the questions at any time in the process and also informed that my participation or nonparticipation or refusal to answer questions will not have any effect on services that I or any member of my family receives. I also informed that no monetary incentives will be given for my participation in the study. I understand that the results of this research will be given to me if I ask for them. Senait Fisseha is the contact person if I have questions about the study and Senait can be contacted through a call at 0911 -47-69-23, or if I want to complain about my rights as a study participant I can call AAU Faculty of Medicine Institution Review Board Office (IRB) with the Tel. No. 011-553-87-34. Email:belay\_senait@yahoo.com.

Based on the above information I agree to participate in the research voluntarily with the hope of contributing to the effort of knowing Quality of Antenatal Care Service in Defense Hospitals (Addis Ababa and Debrezeit).

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Thank you**







25. If your answer for question number 24 is “yes” which of the following treatment did you get? (you can encircle more than one options)

- A. Iron/Folic acid B. Anti hypertension C. Tetanus toxoid D. Others
- 

26. Did health care providers schedule an appointment for you?

- A. Yes B. No

27. In general how satisfied are you with the antenatal care you have received so far in this unit?

- A. Satisfied B. Un satisfied

28. In the future if you get pregnant will you come back to this health institution?

- A. Yes B. No

**Thank You!**

ANNEX IV. AMHARIC VERSION INFORMED SHEET.

የስምምነት ማስገንዘቢያ ቅፅ

በአዲስ አበባ ዩኒቨርሲቲ

የጤና ሳይንስ ኮሌጅ የነርስና ሜድሻይና ት/ቤት

የጤና ድርጅቱ መለያ ኮድ ቁጥር -----

ጤና ይሰጥልኝ

ስሜ -----ይባላል የመጣሁት ከአ.አበባ ዩኒቨርሲቲ የነርስና ሜድሻይና ት/ቤት ነው ::

የአዲስ አበባ ዩኒቨርሲቲ በቅድመ ወሊድ ክትትል ግልጋሎት እርካታ ላይ ለሚያደርገው ጥናታዊ ምርምር አባል ነኝ :: የደንበኞች የቅድመ ወሊድ ክትትል አጠቃቀም እርካታን ለመመዘን በመከላከያ ሆስፒታሎች ላይ የጤና ምርምር በመካሄድ ላይ ይገኛል:: የዚህ ጥናት ዋና አላማ የቅድመ ወሊድ ክትትል ግልጋሎት ላይ ደንበኞች ያላቸውን እርካታ ለመመዘን እንዲሁም ከደንበኞች እርካታ ጋር የተያያዙ ጉዳዮችን ለይቶ በማውጣት ማለትም ዝቅተኛ እርካታ፣ ምንም ዓይነት እርካታ የሌላቸውን ደንበኞች ተጠቃሚ ለማድረግ፣ በተጨማሪም የግልጋሎቱን ጥራት ደረጃውን የጠበቀ እንዲሆን የሚያስችለውን መንገድ ለይቶ ለማሳየት መሞከር ነው :: ይህ በሚደረግበት ጊዜም ስቅድመወሊድ ክትትሉ ያሉትን እጥረቶች በማወቅ ለማሻሻል እንዲችሉ ማገዝ ስለሚያስችል ነው :: ይህንንም ግብ ከዳር ለማድረስ ቀጥሎ ለቀረቡት ጥያቄዎች ትክክለኛውን መረጃ በመስጠት መልካም ትብብርዎን ይጠይቃል ::

ይህ ቃለ መጠይቅ በእርሶ ሙሉ ፍቃደኝነት ላይ የተመሠረተ ነው :: ስለዚህም ቃለ መጠይቁን በፈለጉት ሰዓት መጋራት ወይም ያልፈለጉትን ጥያቄ አለመመለስ ሙሉ መብትዎ መሆኑን ላረጋግጥልዎት እወዳለሁ :: በተጨማሪም የምትሰጧቸው መልሶች ሙሉ በሙሉ ሚስጥራቸው የተጠበቀ ነው :: በዚህ ቃለ መጠይቅ ላይ አለመሳተፍዎ ከጤና ማዕከሉ የሚያገኙትን ግልጋሎት በምንም መልኩ አያደናቅፈውም :: ነገር ግን እርስዎ በጥናቱ መሳተፍዎ የጥናቱን አላማ ለማሳካትና የቅድመ ወሊድ ክትትል አሰጣጥ ላይ ለውጥ ለማምጣት ከፍተኛ ጠቀሜታ አለው ::

ለማንኛው ጥያቄ ካልዎት ሠናይት ፍስሐን በ0911476923 ደውለው መጠየቅ ይችላሉ ::

ለትብብርዎ ክፍ ያለ ምስጋናዬን አቀርባለሁ ::

በጥናቱ ላይ ለመሳተፍ ፈቃደኛ ነዎት?

ለማንኛው ጥያቄ ካልዎት ሠናይት ፍስሐን በ0911476923 ደውለው መጠየቅ ይችላሉ ::

1. ፈቃደኛ ነኝ                       2. ፈቃደኛ አይደለሁም

3. የቃለ መጠይቅ አድራጊው

ሀ. ሙሉ ስም----- ፊርማ-----

ለ. ኮድ ቁጥር-----

ሐ. ቃለመጠይቅ የተደረገበት ቀን-----የተጀመረበት ሰዓት-----የጨረሰበት---- ሰዓት

4. የተቆጣጠሪው ስም-----ፊርማ ----- ቀን -----

ANNEX V. AMHARIC VERSION CONSENT.

በጥናቱ ለመሳተፍ የስምምነት ቅጽ

በዚህ ሰነድ ላይ በመፈረም በመከላከያ ሆስፒታሎች አዲስ አበባና ደብረዘይት አየር ኃይል ሆ/ል በሚደረጉት የቅድመ ወሊድ ክትትል አገልግሎት አሰጣጥ ጥራትን በተመለከተ በሚደረገው ጥናት ላይ ለመሳተፍ ፈቃደኛ መሆኔን እገልጻለሁ።

የጥናቱ አላማም በመከላከያ ሆስፒታሎች የቅድመ ወሊድ ክትትል አሰጣጡን ጥራትና የደንበኞችን እርካታ በተመለከተና ሌሎች ግንኙነት ያላቸው ሁኔታዎች ለመዳሰስና እርካታ የሌላቸውን ደንበኞች ተጠቃሚ ለማድረግና የጥራት ደረጃውን ለማሻሻል መሆኑን ተነግሮኛል። በዚህ ጥናት ላይም በተራዬ እንድሳተፍ ተጠይቂያለሁ። በጥናቱ ላይ መሳተፍ በፈቃደኝነት ላይ የተመረኮዘ መሆኑንና የምሰጠው መረጃም ለጥናቱ ዓላማ ብቻ እንደሆነ ተነግሮኛል።

በጥናቱ ላይ አለመሳተፍ ወይም መሳተፍ ጀምሮ ማቋረጥ ከፈለግሁ ማቆም እንደምችል እንዲሁም መመለስ የማልፈልጋቸውን ጥያቄዎች አለመመለስ እንደምችል ተነግሮኛል። ነገር ግን በጥናቱ ላይ ባለመሳተፌ እኔም ሆነ ቤተሰቦቼ በምናገኘው አገልግሎት ላይ ምንም ዓይነት ተፅዕኖ ወይም ጉዳት እንደሌለው ተረድቻለሁ። በተጨማሪም የምሰጣቸው መልሶች ለማንም እንደማይሰጡና በሚስጥር እንደሚጠብቁ እንዲሁም በዚህ ጥናት ሪፖርትም ውስጥ የሰጠሁት መልስ የኔ ለመሆኑ ማንም ሊያውቅ እንደማይችል ተገንዝቢያለሁ። በዚህ ጥናት በመሳተፌ የምሰጠው መረጃ ግን የጥናቱን ዓላማ ለማሳካት እና የቅድመ ወሊድ አገልግሎት አሰጣጥ ላይ ለውጥ ለማምጣት ከፍተኛ ጠቀሜታ እንዳለው ተገንዝቢያለሁ። የዚህንም ጥናት ውጤት ማወቅ ከፈለግሁ ሊሰጠኝ እንደሚችልና ይህንንም ጥናት በተመለከተ ሊኖሩኝ ለሚችሉ ጥያቄዎች ሁሉ ሠናይት ፍስሐን በስልክ ቁጥር 011476923 ማነጋገር እንደምችል ተገልጿል። ለተጨማሪ መረጃ የሕክምና ፋኩልቲ ኢንስቲትዩት ቦርድ ቢሮን በስልክ ቁጥር 011-553-87-34 ማነጋገር እንደምችል ተገልጿል።

የተሳፊታ ፊርማ -----

ቀን-----

አመሰግናለሁ።

**ANNEX VI. QUESTIONNAIRE AMHARIC VERSION**

በመከላከያ ሆስፒታሎች የቅድመ ወሊድ ክትትል ግልጋሎት ዙሪያ የአገልግሎት ጥራትና የተጠቃሚዎችን እርካታ ለመገምገም የተዘጋጀ መጠይቅ

መጠይቁ መለያ ቁጥር-----

የጤና ድርጅቱ ስም-----

ቃለ መጠይቅ የተካሄደበት ቀን -----

**ክፍል 1 ማህበራዊና ዲሞግራፊያዊ ሁኔታዎች:-**

101. ዕድሜ-----ዓመት

102. የጋብቻ ሁኔታ:- ሀ/ ያገቡ ለ/ ያላገቡ ሐ. የተፋቱ ሐ. ባል የሞተባቸው ሠ. ሌሎች  
ይግለፁ -----

103. ብሔር:- ሀ/ አማራ ለ. ኦሮሞ  
ሐ/ ትግሬ መ. ደቡብ ብሔር ሠ. ሌሎች /ይግለፁ/-----

104. ሃይማኖት

ሀ. ኦርቶዶክስ ለ. ሙስሊም  
ሐ. ፕሮቴስታንት መ. ሌሎች /ይግለፁ/ -----

105. የትምህርት ደረጃ:-

ሀ. ማንበብና መጻፍ የሚችሉ ለ. የመጀመሪያ ደረጃ ት/ቤት  
ሐ. ሁለተኛ ደረጃ ት/ቤት መ. ድህረ ሁለተኛ ደረጃ ት/ቤት

106. ስራ:- ሀ. የቤት እመቤት

ለ. የመንግስት ሠራተኛ  
ሐ. ነጋዴ መ. የመንግስት ያልሆነ ድርጅት ሠ. ሌሎች /ይግለፁ/ -----

107. የልጅ ብዛት -----

108. አማካይ የወር ገቢ -----

**ክፍል 2 ስለ ቅድመ ወሊድ ክትትሉ አጠቃላይ መረጃ**

201. ወደ እዚህ የጤና ድርጅት ለቅድመ ወሊድ ክትትል ሲመጡ ለስንተኛ ጊዜ ነው?

ሀ. ለመጀመሪያ ጊዜ                      ለ. ለሁለተኛ ጊዜ

ሐ. ለሶስተኛ ጊዜ                      መ. ከሶስት ጊዜ በላይ

202. ለቅድመ ወሊድ ክትትል በሚደረጉ ቀጠሮዎች መካከል ያለው ጊዜ እንዴት ነው?

ሀ. በጣም አጭር                      ለ. በጣም ረጅም

ሐ. ጥሩ/በቂ ነው                      መ. አላውቅም

203. አማራጭ ቢሰጥዎት አገልግሎቱን ማግኘት የሚፈልጉት በማን ነው?

ሀ. በወንድ ባለሙያ                      ለ. በሴት ባለሙያ

ሐ. አልመርጥም

204. የጤና ድርጅቱ ከቤትዎ ያለው ርቀት

ሀ. በጣም ቅርብ ነው።                      ሐ. በጣም ሩቅ ነው።

ለ. አማካኝ ነው።

205. ወደ ጤና ድርጅቱ ከደረሱ በኋላ አገልግሎቱን ለማግኘት ምን ያህል ጊዜ ጠበቁ?

----- ደቂቃ                      ሰዓት                      አላስጠውስም-----

206. የጤና ድርጅቱ የስራ ሰዓት አገልግሎት ለማግኘት ምቹ ነው ብለው ያስባሉ?

አዎ ----- አላስብም -----

207. አገልግሎት የሰጥዎት ባለሙያ በዛሬ ቆይታዎ የሚስማዎት/ የሚያሳስቡት ችግር እንዳለ ጠይቆዎታል

አዎ ----- አልጠየቀኝም -----

208. አገልግሎት የሰጥዎት ባለሙያ ችግሮዎትን ሲናገሩ/ሲያስረዱ በጥሞና አዳምጠዎታል

አዎ----- አላዳመጠኝም -----





## **ANNEX VII. Questionnaire Oromoofa version**

**Qulqullina (quality) kunuunsa da'umsa duraa, Gaaffii Dubartootaaf Qophaa'e**

Maqaa Buufata Fayyaa \_\_\_\_\_

Lakk. Koodii Gaaffii \_\_\_\_\_

Guyyaa \_\_\_\_\_

### **Kutaa 1- Gaaffii eenymmaa fi Haala jireenyaa**

1. Umuriin keessan Meeqaa? \_\_\_\_\_
2. Jiruu godhattanii jirtuu?
  - A. Hin heerumne
  - B. Heerumeera
  - C. Addaan baheera/ Hiikeera
  - D. Abbaan manaakoo du'eera
  - E. Kan biraa yoo jiraate, \_\_\_\_\_
3. Sabnikeessan maali?
  - A. Oromoo
  - B. Amaara
  - C. Guraagee
  - D. Tigree
  - E. Kan biraa yoo jiraate, \_\_\_\_\_
4. Amantaankeessan maali?
  - A. Orthodoxii/Kiristaana
  - B. Kaatoolikii
  - C. Pirooteestaantii

- D. Musliima
  - E. Kan biraa yoo jiraate
5. Sadarkaan barumsa keessanii meeqa?
- A. Hin baranne
  - B. Sadarkaa tokkoffaa
  - C. Sadarkaa lammaffaa
  - D. Sadarkaa yunivarsitii
6. Hojiin keessan maali?
- A. Haadha warraa
  - B. Hojjettuu mootummaa/ Kan dhuunfaa
  - C. Daldaaltuu
  - D. Hojjettuu kan dhuunfaa
  - E. Kan biraa yoo jiraate.....
7. Ijoollee meeqa qabdu?\_\_\_\_\_
8. Ji'atti galiin keessan meeqa ta'aa?

**Kutaa 2- Gaaffiiwwan Waa'ee Kunuunsa Daumsa Duraa**

Har'a wajjin ega ulfooftanii yeroo meeqaffaadhaaf dhufuukeessani?

- A. Yeroo duraatiif
- B. Yeroo lammataa
- C. Yeroo sadaffaa
- D. Yeroo baay'ee

9. Yeroon beellama kunuunsa da'umsa duraa gidduu jiru:
- A. Baay'ee gabaabaa dha
  - B. Baay'ee dheeraa dha
  - C. Gahaa natty fakkaata
  - D. Hin beeku
10. Odoo filannoon siiniif kennamee ogeessa fayyaa dhiiraa moo dubartii filattuu?
- A. Dhiira
  - B. Dubartii
  - C. Filannoo hin qabu
11. Fageenyi buufata fayyaa fi manakeessan gidduu jiru:
- A. Baay'ee dhiyoo dha
  - B. Homaa hin jedhu
  - C. Baay'ee fagoodha
12. Ogeessan fayyaatiin osoo hin ilaalamiin buufata fayyaa kana keessa hammam turtan?
- A. Daqiiqaa \_\_\_\_\_
  - B. Sa'aatii \_\_\_\_\_
  - C. Hin yaadadhu
13. Yeroon hojii buufata fayyaa kanaa sinitti tolee jiraa?
- A. Eyyee
  - B. Lakki
14. Yeroo beellam keessaniif dhuftanii ilaalamtan, dhimmoota yeroo garaatti baattan kanatti isin yaaddeessu/dhiphisu irratti ogeessa fayyaa waliin mari'attaniittu/ isin gaafataniiruu?
- F. Eyyee
  - G. Lakki

15. Dhimma isin yaaddeessu/dhiphisu yeroo himattan ogeessonni fayyaa yaada keessan ni dhaggeefatuu/isin caqasuu?
- A. Eeyyee
  - B. Lakki
16. Ogeessa fayyaa waliin yeroo marii gaggeessitan namni biro jiraachuunsaa isin cinqaa/dhiphisaa?
- A. Eeyyee
  - B. Lakki
17. Odeeffannoon akkatti fayyaakeessan eegdan isinitti himamee jiraa?
- A. Eyyee
  - B. Lakki
18. Gaaffii lakkoofsa 18rra jiruuf deebiinkeessan 'Eeyyee' yoo ta'e, wantootan armaan gadi sinitti himu keessaa kam sinitti himanii?
- A. Waa'ee Da'umsaa/Ciniinsuu
  - B. Waa'ee iddoo da'umsaa
  - C. Waa'ee qusannaa maatii
  - D. Waa'ee kunuunsa da'umsa boodaa
  - E. Kan biro yoo jiraatan, -----
19. Ogeessonni fayyaa waantota yeroo ulfaa kana hin fudhatamne fakkeenyaaf dhugaatii, tamboo xuuxuu, qoricha adda addaa fudhachuufii kan kana fakkaatan sin waliin mari'ataniiruu?
- A. Eeyyee
  - B. Lakki

20. Rakkoolee yeroo ulfaa kana sinqunnaman fi akkatti beekuu dandeessan sinitti himameeraa?
- A. Eeyyee
  - B. Lakki
21. Gaaffii armaan olii 21rra jiruuf deebiinkeessan ‘Eeyyee’ yoo ta’e waantota armaan gadii keessaa kamfaa sinitti himanii?
- A. Dhiiga yeroo ulfaa
  - B. Ho’ina qaamaa
  - C. Bishaan dhangala’uu
  - D. Of wallaaluu
  - E. Gaggabuu
  - F. Kan biraa
22. Ogeessonni fayyaa ijakeessan, lapheekeessan, harmakeessan , garaakeessan fi lukakeessan ilaalaniiruu?
- A. Eeyyee
  - B. Lakki
23. Yeroo kunuunsakeessanii kanatti qorichi siniif kenname jiraa?
- A. Eeyyee
  - B. Lakki
24. Deebiinkeessan gaaffii 24’f yoo ‘Eeyyee’ ta’e qorichoota armaan gadii keessaa kam siinii kennanii?
- A. Qoricha hir’ina dhiigaaf kennamu
  - B. Qoricha dhiibbaa dhiigaaf kennamu

- C. Qoricha Teetaanasii, kan harkarratti waraanamu
- D. Kan biro,-----
25. Yeroo deebitanii dhuftanyookiin guyyaa beellamakeessanii sinitti himameeraa?
- A. Eeyyee
- B. Lakki
26. Walumaa galatti kunuunsi buufata fayyaa kanarraa argattan hammam isin gammachiiseera?
- A. Baay'ee nagammachiiseera
- B. Hamma ta'e gammadeera
- C. Nan gammachiifne
27. Gara fulduraatti yoo deebitee ulfooftanii kunuunsa kanaaf buufata fayyaa kana deebitanii dhufuu?
- A. Eyyee
- B. Lakki

**Galatoomaa!**

## **ANNEX VIII. FOCUS GROUP DISCUSSION GUIDELINE FOR CLIENTS'**

1. What kind of care do women need during pregnancy?
2. Who is better suited to provide antenatal care? (Doctors, nurses, midwives? Men or women?)
3. How many times is it necessary for a woman with a normal pregnancy to attend the clinic?
4. Are you happy with the number of visits this clinic provides?
5. What kind of information do you like to receive during your antenatal care visit?
6. Do you think that the information you get is enough?
7. Do you understand what doctors explain to you?
8. Do you like the way providers treat you in this clinic?
9. How would you like to be treated?
10. What do you like most/least about the care you receive in this centre?
11. How would you describe the ideal antenatal care and the ideal health centre?

**ANNEX IX. OBSERVATION CHECKLIST for Equipment, Supplies, Drugs and Tests for Routine and Emergency Pregnancy and Postpartum Care at Armed Forces Teaching General Hospital /AFTGH/ & Air Force Hospitals.**

**Code of the health facility**\_\_\_\_\_

**Warm and clean room**

- Examination table or bed with clean linen
- Light source

**Hand washing**

- Clean water supply
- Soap
- Clean towels

**Waste**

- Bucket for soiled pads and swabs
- Container for sharps disposal

**Sterilization**

- Instrument sterilizer
- Jar for forceps

**Miscellaneous**

- Wall clock
- Torch with extra batteries and bulb
- Log book
- Records
- Refrigerator

## **Equipment**

- Blood pressure machine and stethoscope
- Body thermometer
- Fetal stethoscope
- Baby scale

## **Supplies**

- Gloves:
  - utility
  - sterile or highly disinfected
  - long sterile for manual removal of placenta
- Urinary catheter
- Syringes and needles
- IV tubing
- Suture material for tear or episiotomy repair
- Antiseptic solution (iodophors or chlorhexidine)
- Spirit (70% alcohol)
- Swabs
- Bleach (chlorine base compound)
- Impregnated bednet
- Condoms
- Alcohol-based handrub

## **Tests**

- Syphilis testing (e.g. RPR)
- Proteinuria dip sticks
- Container for catching urine
- HIV testing kit (2 types)
- Haemoglobin testing kit

## **Disposable delivery kit**

- Plastic sheet to place under mother
- Cord ties (sterile)
- Sterile blade

## **Drugs**

- Oxytocin
- Ergometrine
- Magnesium sulphate
- Calcium gluconate
- Diazepam
- Hydralazine
- Ampicillin
- Gentamicin
- Metronidazole
- Benzathine penicillin
- Cloxacillin
- Amoxicillin

- Ceftriaxone
- Trimethoprim + sulfamethoxazole
- Clotrimazole vaginal pessary
- Erythromycin
- Ciprofloxacin
- Tetracycline or doxycycline
- Artemether or quinine
- Chloroquine tablet
- Lignocaine
- Adrenaline
- Ringer lactate
- Normal saline 0.9%
- Glucose 50% solution
- Water for injection
- Paracetamol
- Gentian violet
- Iron/folic acid tablet
- Mebendazole
- Sulphadoxine-pyrimethamine
- Nevirapine (adult, infant)
- Zidovudine (AZT) (adult, infant)
- Lamivudine (3TC)

**Vaccine**

Tetanus toxoid

**- Number of health caregivers' \_\_\_\_\_**

- Gynecologist [ ] [ ]

- Midwives [ ] [ ]

- Nurses [ ] [ ]

- Cleaners [ ] [ ]

**- Focus antenatal application and birth preparedness and complication readiness information chart availability.**

**- Any Emergency guidelines available? [ ] [ ]**