



ASSESSMENT OF PATIENTS' SATISFACTION WITH HIV CARE AND
TREATMENT SERVICES IN WOLDYA, LALIBELA AND TEFERA HAILU
MEMORIAL HOSPITALS

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HAILU MEMORIAL HOSPITALS

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ABSTRACT

Background: The HIV/AIDS pandemic is a major public health problem with an estimated 32.3 million people living with the virus globally. The problem is excessively worse in sub Saharan Africa. Ethiopia is one of the highly affected countries. Free antiretroviral treatment was initiated in Ethiopia in 2005. One of the commonly used outcome measures of patient care is Patients' satisfaction. The assessment of patients' satisfaction with the ART services is important. Very high levels of patient satisfaction and treatment adherence are important for a successful strategy against HIV/AIDS. So assessing patient's satisfaction on HIV/AIDS would help us to avert the epidemic.

Objective: The aim of this study is to assess patients' satisfaction with HIV care and treatment service in Woldia Zonal Hospital, Lalibela Hospital and Tefera Hailu Memorial Hospital in Northeast Amhara National Regional State.

Methods: A cross-sectional qualitative study was conducted in Woldiya THMH and Lalibela governmental hospitals from February to March 2011. A total of 268 Pre-ART & ART client were involved, proportional distribution of samples was carried out based on the number of ART patient flow systematic sampling technique was used; the required sample size data were interred and processed in to the computer using version 16 stastical packages. The structured questionnaires had been used. Those respondents who were replying very dissatisfied, dissatisfied and neutral grouped as not satisfied; and satisfied and very satisfied were categorized as satisfied.

Results: Out of 276 subjects intended to be included in the study, 268 (95.7%) patients on ART responded to the questionnaire. level of overall satisfaction was 60.4%. Overall satisfaction of patients on ART and Pre-ART was higher in Tefera Hailu Memorial Hospital (87.5%) than Woldiya (47.9%) and Lalibela Hospitals (45.7%). The maximum level of satisfaction were consultation (90.3%) and queue process (86.6%) and minimum level of satisfaction were waiting time to get different service of ART and confidentiality which accounted 65.3% and 72% respectively. Concerning the main causes of ART service dissatisfaction were absence of drugs and supplies in pharmacy (59%) and delay to get laboratory services (87.7%).

Conclusions and recommendations: Most of the results showed that in areas of HIV care and treatment services of the study population were satisfactory. Yet, still many patients were not satisfied with service provision of the ART clinic. Delay to get laboratory results and shortage of opportunistic drugs in pharmacy departments were the major reasons to be not satisfied with the services delivered. Patient who were male and diploma and above in their educational statuses were less likely satisfied than those who were female and illiterate respectively. Patients who earned ETB greater than 500 per month were three times more likely satisfied than those who earned less than 100 ETB per month.

The hospital management committee should work to strengthen the ART clinic services by helping staff to involve patients in the HIV treatment and care services and improve the complaint procedure in way that clients can be encouraged and use it appropriately. Providing professional ethics for ART laboratory and pharmacy workers should be undertaken for each hospital. The management committee of each hospital should work hard in availability of drugs and supplies; and delay to get laboratory result also minimized.

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Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
AOR	Adjusted Odd Ratio
ART	Antiretroviral Therapy
ARV	Antiretroviral
CEO	Chief Executive Officer
CPT	Co-trimoxazole Prophylaxis Therapy
ETB	Ethiopian Birr
HAART	Highly Active Anti Retroviral Treatment
HCT	HIV Counseling and Testing
HIV	Human Immune Virus
IEC/BCC	Information Education Communication /Behavioral Change Communication
LTFU	Lost to Follow Up
OR	Odd Ratio
PITC	Provider Initiative Testing and Counseling
PLWHA	People Living With HIV /AIDS
PMTCT	Preventions of Mother to Child Transmission
SPSS	Statistical Software for Social Science
SSA	Sub-Saharan Africa
STI	Sexually Transmitted Infections
TB/HIV	Tuberculosis /Human Immune Virus
THMH	Tefera Hailu Memorial Hospital
VCT	Voluntary Counseling and Testing

Operational Definitions

Satisfaction- Patients' opinion towards provider and facility of care received from ART services/ staff and is acknowledged. In this study clients /patients that have mean summary satisfaction score of 4 and above were considered to be satisfied where as patients who have mean summary satisfaction score of below 4 were considered as not satisfied.

Waiting time- duration of time patients spend at the waiting room before seen by a doctor.

Consultation duration- duration of time patient spent (as recorded by the interviewers) at the examination room, from entry to exit.

Providers' technical competency - it is patients' opinion of their health care provider technical competency, determined by the availability of satisfaction or dissatisfaction.

Client-provider interaction - It is an exchange of information between healthcare provider and PLWHA about consultation, treatment, and diagnosis by using various approaches such as dignity, respect and greeting.

Patient/ client - a person who gets help and advice from health provider for the treatment of HIV/AIDS

CHAPTER I

1. INTRODUCTION

1.1. Background

Globally, almost 60 million people have been infected with HIV and 25 million people have died of HIV-related causes. In 2008, some 33.4 million people living with HIV, 2.7 million new infections and 2 million AIDS-related deaths were reported. Young people account for around 40% of all new adult HIV infections worldwide (1).

Sub-Saharan Africa is the region most affected and is home to 67% of all people living with HIV worldwide and 91% of all new infections among children. In sub-Saharan Africa the epidemic has orphaned more than 14 million children (1).

Ethiopia is among the countries most heavily affected by the HIV epidemic (2). The cumulative number of PLWHA is about 977,394, with 64,813 children under 15 years of age. According to single point HIV prevalence estimate, the national prevalence rate is 2.1% with 7.7% in the urban and 0.9% prevalence in rural (3). The same literature revealed that, there are an estimated 125,528 and 14,148 new HIV infections in the adult and children population, respectively. Annually, 71,902 adults and 10,825 children have died of AIDS and currently 258,264 adults and 15,716 children need antiretroviral treatment (4).

In the recent UNAIDS report on the global AIDS epidemic, some encouraging signs indicate in that the epidemic is stabilizing, the HIV incidence has fallen by more than 25% between 2001 and 2009 in 33 countries 22 of these countries are in sub-Saharan Africa. In sub-Saharan Africa, where the majority of new HIV infections continue to occur, an estimated 1.8 million people became infected in 2009, considerably lower than the estimated 2.2 million people in sub-Saharan Africa newly infected with HIV in 2001. This trend reflects a combination of factors, including the impact of HIV prevention efforts and the natural course of HIV epidemics, the countries plan to respond to the HIV/AIDS emergency cannot be achieved without adequate focus on improving quality of care or treatment & satisfaction. Even if the government of

Ethiopia is working to scale up ART service, little has been done to assess patients satisfaction (5- 6, 34).

Client satisfaction with treatment processes may both influence, and be influenced by, treatment outcomes. Clients who are not satisfied with a service may have worse outcomes than others because they miss more appointments, leave against advice or fail to follow through on treatment plans. On the other hand, clients who do not do well after treatment may have less than favorable attitudes towards a treatment service, even if it was of high quality by other criteria. In practice, these mutual influences may be difficult to disentangle. It is worth keeping in mind that satisfaction with the treatment processes, treatment compliance, and positive treatment outcomes are inter- related. Ratings of different dimensions of satisfaction have been highly correlated in some studies, and scores on these dimensions have been added to yield overall satisfaction ratings. However, responses to specific items are of interest to service providers who want to find out how a particular aspect of the service could be improved (8-11, 35).

Patient's satisfaction is one of the imperative crucial components for the great success of any healthcare services. Principally, it is extremely more important and significant key issue in the ART units because of their vital role in the lives of hundreds of thousands of HIV/AIDS patient's (12). Judgments on the quality of care are often formulated by managers or health professionals. However, patient views on the quality of health care differ from the views of health care professionals, managers, insurers and policy makers (13-14).Patients' views cannot be inferred from managers' or health professionals' views and should be assessed separately. Reliable and valid assessment of patient views is necessary when it comes to shaping health policies aimed at improvement of the quality of health care for patients suffering from diseases, Patient views on the quality of care have always been assessed by means of patient satisfaction questionnaires (15-17).

Patients and communities often focus on effectiveness, accessibility, interpersonal relations, continuity, and amenities as the most important dimensions of quality. However it is important to note that communities do not always fully understand their health service needs especially for preventive services and cannot adequately assess technical competence. Specific questions may assess clients' views about, the physical setting of services, the helpfulness of support staff, information resources, the competence of counselors, the relevance of services to

their needs, the accessibility of services, waiting times for service components, frequency of appointments, time spent with counselor, the ‘humanness’ of services, the effectiveness of services in their problems (18).

1.2. Statement of the Problem

Lack of adequate information in the treatment process on PLWHA leads them patient to interrupt their medication and may not leave longer. In Amhara National Regional State the number of PLWHAs is estimated at 444,560, of which 30,629 were enrolled in chronic care. Approximately 19,779 of patients had started ART, but only 51.3% (or 15,703) continued the therapy. This means that 48.7% of patients enrolled in chronic HIV and AIDS care did not show up to the clinic on their scheduled appointment dates, and thus could be considered LTFU (26).

This high burden of HIV/AIDS is associated with not only the rate of morbidity and mortality but affects the overall social and economic situations of the community, families and nations. Due to this burden most work force of the community reduced, institutions lose important personnel absenteeism in work area increased, productivity decline, children and young groups are enforced to leave with their grandparents (4, 42).

Patient satisfaction with treatment processes both influence, and is influenced by treatment outcomes. Clients who are not satisfied with a service may have worse outcomes than others because they miss more appointments, leave against advice or fail to follow through on treatment plans. On the other hand, clients who do not do well after treatment may have less than favorable attitudes towards a treatment service, even if it was of high quality by other criteria. In practice, these mutual influences may be difficult to separate (4).

The study done in Felege Hiwot referral hospital Bahir Dar in2007 the study stated that, they were waiting for more than halve an hour to get ART service, long waiting time to get the service as one of the reason for client dissatisfaction (5).

Another study done at Felege Hiwot Hospital Bahir Dar in 2006 showed that the average rate of satisfaction was relatively higher for variables related with provider–patient

interaction for which the average satisfaction score was high. On the other hand, the satisfaction score was relatively lower for affordability of care which was mainly related with the non-medical cost of visiting the HIV clinic (27).

The study done at Jimma University Hospital in September 2007 showed that waiting time to get different service in the ART clinic were less time taking from different classes than that of card room and to be seen by ART staffs. Concerning the communication between health care professionals and PLWHA most of the patient have been informed about the nature of the disease, and given explanation about the need for regular follow up and all the study subjects reported that they were explained about the drugs excellently. With regard to information provided by health care professionals on tests treatments and expectation, the willingness of health professionals to answer their questions and helpfulness of professionals and their skill as excellent, but much professionals involve them in their medical decisions as poor (29).

Saul NW, *et al* on his study at Boston teaching hospital in 2003 showed that the most common service quality problems involved waits and delays, poor coordination of care, problems with communication between staff and patients, Poor interpersonal skills and unprofessional behavior. Patients observed staff members' lack of respect for patients, arrogance, tactlessness, unhelpfulness, and rude behavior. For example, one patient said 'I feel like whenever the nurses leave my room, they giggle and they have rolled their eyes at me and at each other; And environmental issues and amenities (30).

The study done in Addis Ababa 2005 showed that from the variables that affect satisfaction of clients by rating responses on three point scale, that is satisfied, Neutral and dissatisfied, lack of getting information about services in registration, examination, laboratory and dispensing rooms 14.2%, lack of cleanliness and comfort of waiting areas, examination room and compound 6.1%, long time spent to get health service and get back to home 4.7%, and discomfort with queue process to be seen by health professionals 4.7% were the leading causes of dissatisfaction mentioned by clients (32). Client satisfaction is the level of satisfaction that clients experience having used a service. It therefore reflects the gap between the expected service and the experience of the service (37).

So the main problems for patient dissatisfaction in ART service provision were long waiting time, delay to get laboratory result, willingness of health professionals to answer their questions, discomfort with queue process and shortage of drugs.

1.3. Significance of the Study

The aim of this study was to assess the level of satisfaction of patient with HIV care and treatment and to identify factors for dissatisfaction.

Assessing the existing situation of levels of patients' satisfaction and identifying factors for their dissatisfaction services in the hospitals that started ART program in recent years will help to take rapid measure before patients on ART service treatment failure happen as the result of dissatisfaction. The result obtained from this study will use the Amhara National Regional State HIV /AIDS Prevention and Control Office (HAPCO) Regional health bureau, and the study hospitals, to see the gap in patient satisfaction of the service and to fill these gaps accordingly this will help for the patient to live longer, important also for the community because it reduces the mortality rate of the productive population group and most institutions remain functional and patient adhere properly. And this research will provide base line information for more researches that will be conducted on patient satisfaction in ART clinic service of hospitals; and finally this study will be utilized as an input for policy makers to plan strategies of interventions for better quality of care in PLWHA.

1.4. Study variables

1.4.1. Dependent variables

Patient satisfaction

1.4.2.Independent variables

Provision of consultation of services, convenience of service hours, waiting time to get services, patient provider interaction, information provision Socio demographic variables like marital status, Sex, Religion, Ethnicity, Age, Educational status, occupation, & income

CHAPTER II

2. LITERATURE REVIEW

A study done in united states showed that general satisfaction with Highly Active Anti Retroviral Treatment (HAART) care was associated with a 23% greater likelihood of women reporting HAART, each unit increase in satisfaction with access/convenience was associated with a 36% possibility, and each unit increase in satisfaction with provider was associated with a 40% greater possibility. Most characteristics of the sample did not change particularly over time; although there were general increases in income increases in the percentages of women who were employed had stable housing, and had Medicaid improvements in clinical disease markers (19, 37).

Bernhat *et al* on his patient satisfaction studies in developing country showed that 84% clients were satisfied with the amount of the time spent with doctors while sixteen percent were not satisfied with the amount of the time spent with doctors (21).

A study done on assessment of efficiency of service at a teaching hospital in a developing country by A.N.ofili and C.E.ofovwe showed that 56% of patients were satisfied with the pharmacy service while 44% not satisfied and for laboratory service 73.2% of patient were satisfied while 25.6% showed that dissatisfied (22).

Another Study was done in Burkina Faso to assess the delivery of HIV-related services is related with users' satisfaction, through the quality of care they receive, in this study the quality of care varies between patients visiting for services related to HIV/AIDS and those visiting for other purposes, Visiting for HIV-related services makes a difference in the overall quality, costs of care and waiting time due to the nature and seriousness of chronic disease that might require more attention from the health provider than other medical conditions (23).

A study done on quality of HIV/AIDS services in health facilities of Ethiopia an exit interview was done to assess their satisfaction with services related to HIV the result showed that 37.6% clients reported long waiting time to get service than they expected. Eighty seven percent of the clients interviewed agreed that the health care providers were able to keep their privacy and confidentiality. Most of the clients 92.6% felt comfortable to ask question. Explanation about health problem was agreed to be good in 93.7% of clients and 89 % of clients agreed that they

were told useful information on how to take care of themselves and their families. Satisfaction criteria showed that 96.2% were satisfied with the service (24).

The most important predictor for client satisfaction with the government services was provider behavior, especially respect and politeness. For patients this aspect was much more important than the technical competence of the provider, a reduction in waiting time (on average to 30min) was more important to clients than a prolongation of the quite short consultation time (on average 2 min, 22 sec), with 75% of clients being satisfied. 34.2% service users were not satisfied with the length of time that the facilities were open to the public and 28.2% of all users were not satisfied with the time they waited to receive care (25).

A study done by International Teaching and Education Center for HIV/AIDS (I-TECH) Ethiopia showed that there are an estimated of 1.3 million people living with HIV and AIDS (PLWHAs) in Ethiopia. In 2005, the Ethiopian Ministry of Health launched a free antiretroviral therapy (ART) program. As of April 2007, 140000 PLWHA were enrolled in chronic HIV and AIDS care. Of these, 83099 started on ART however, only 76% remained in care, leaving approximately 20,000 patients as lost to follow-up (26).

Ybelta, *et al*, on his patient satisfaction survey on 2006 showed that the average level of satisfaction was 78.0% at Felege Hiwot Hospital. Average rate of satisfaction was relatively higher for variables related with provider-patient interaction (88%). On the other hand, the satisfaction score was relatively lower for affordability of care which was mainly related with the non-medical cost of visiting the HIV clinic. The average satisfaction score for this dimension was 64.0 % (27).

Birhanu *et al* has conducted a cross sectional facility based study in 2009 West Shoa Zone, Central Ethiopia showing that 73 % of respondents were perceived that provider's empathy was good and 35% complained that providers were not technically competent enough. In addition (22.9%) of the respondents claimed that their privacy was not respected during consultation, 19.9% of the respondents felt that the consultation rooms did not provide adequate privacy, it was also found that 24.5% of the respondents did not tell all of their private issues related to their health condition to the health care provider, but 97.3% and 88.0% of the respondents felt that the waiting areas and seats were comfortable, respectively (28).

Another study done in Felege Hiwot Referral Hospital Bahir Dar in 2007 by Almaz T stated that 31.3% respondents claimed they were waiting for $\geq \frac{1}{2}$ hour to get ART service. This is also supported by the result of in depth interview in which almost all of the participants mentioned that long waiting time to get the service as one of the reason for client dissatisfaction. And patient provider relationship satisfaction rate was 100%. The overall satisfaction of clients on ART service in this study was 70.9% considered good quality (5).

Helena G *et al* .used an output monitoring at Jimma to measure patient satisfaction regarding time taken for different services, 86.7% respondent were waited for less than 15 minutes while 13.3% stated that they waited for 16-30 minutes at the card room. 51.7% and 30.8% reported that they waited for <15 minutes and 16-30 minutes, respectively to be seen by the ART staffs, 91.3% waited for more than 60 minutes to get laboratory service, while 100% stated that they had to wait for <15 minutes to get pharmacy service. Concerning the communication between health care professionals and PLWHA, 98.3% reported to have been informed about the nature of the disease, while 98.6% said that they were given explanation about the need for regular follow up and all the study subjects reported that they were explained about the drugs, regarding Interaction between health care professionals 98.9% were have good interaction (29).

A cross sectional comparative study done at Zenebework Hospital showed that between 7.3 and 33.6% of PLWHA on HAART experienced substantial impairments in same aspects of quality of life for almost 28% reported health limitations to moderate activity like washing clothes or moving bundle of fine wood from one place to another (31).

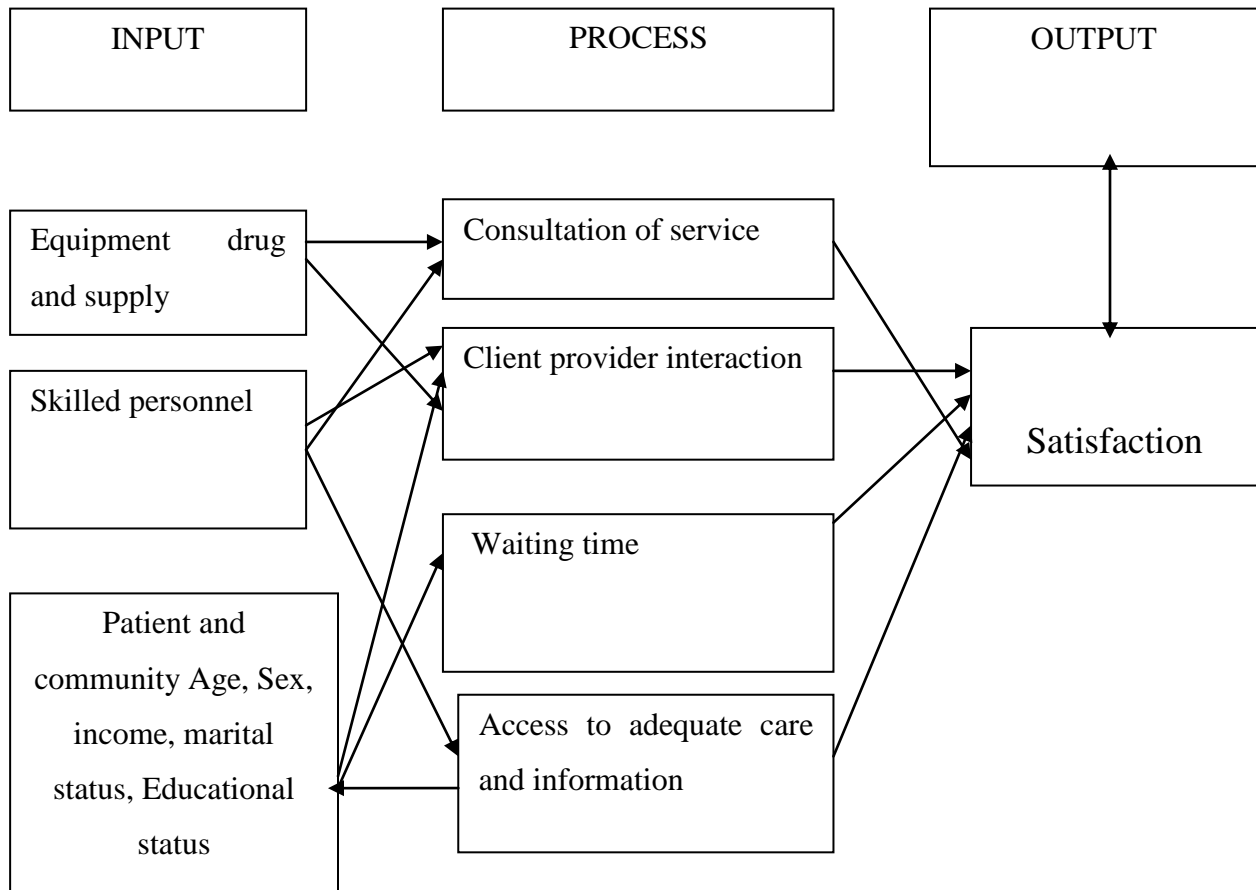
The study done in Addis Ababa governmental hospital showed that different variables that affect satisfaction of clients by rating responses on three point scale- satisfied, Neutral and dissatisfied. These different variables include satisfaction of clients in relation to waiting time, queue process, respect given by health professionals, way of examination, privacy, availability of drugs and supplies, cleanliness, completeness of information, confidentiality. Results showed lack of getting information about services in registration, examination, laboratory and dispensing rooms 14.2%, lack of cleanliness and comfort of waiting areas, examination room and compound 6.1%, long time spent to get health service and get back to home 4.7%, and discomfort with queue process to be seen by health professionals 4.7% were the leading causes of dissatisfaction mentioned by clients (32).

According to the evaluation of out-patient care "waiting time for care" showed the lowest degree of responsiveness 51.2% among all the areas analyzed. While the aspects related to health professionals' skills 92.3% adequate equipment 91.6% adequate availability of medicines received 87.1% and respect for intimacy during physical examination 77.9% had the highest responsiveness scores (35).

Another study was done to assess satisfaction with outpatient health services at Jimma hospital showed that 57.1% of respondents were satisfied, satisfaction has direct relation with increase in age but not in increase educational level of respondents (38).

The study at eastern part of In Harari region of two hospital showed that 46% of the interviewees said that they were not satisfied with the health services provided. Satisfaction with health care was found to have a significant association with waiting time, the availability of drugs, the payment status of the respondent and the address of the patient (40).

Conceptual framework of patient satisfaction on HIV care and treatment



(Adopted from A, Donabedian an introduction to quality assurance in health care, 2003)

Figure 1: Conceptual frame work for assessment of client satisfaction with HIV care and treatment, Woldiya, Lalibela and THMH hospitals in Amhara National Regional State, Ethiopia, May, 2011

- There is relationship between the Input processes & output of HIV care.
- The availability of resources only could not promise utilization of services, processes cannot be performed unless the necessary resources are made available.
- The output of HIV care is mainly the indication of satisfaction of HIV care.
- Reviewing of the input, process and output will aid to identify specific areas of the program which need improvement.

CHAPTER III

3. OBJECTIVES

3.1. General Objective

To assess level of satisfaction of clients with HIV care and treatment and identify the factors for their dissatisfaction.

3.2. Specific objectives

To determine the level of satisfaction of clients on HIV care and treatment with the services in ART clinic at selected hospitals.

To identify factors for dissatisfaction in clients' on HIV care and treatment at ART clinic in ART clinic at selected hospitals.

CHAPTER IV

4. METHODS

4.1. Study Area and Period

4.1.1. Study Area

The Amhara National Regional state is the second largest state in the country, following Oromia Region. It is located in the northern, northeastern and central areas of Ethiopia covering an area of 170,752km (11% of Ethiopia's total area). The Region is divided into ten administrative zones, 106 rural and nine urban Woredas and 2,902 rural Kebeles. Regional state has 16 governmental Hospitals, two referral, four zonal and ten district hospitals, Woldeya, Lalibela, and, Tefera Hailu Memorial Hospitals are my study area which is found in Northeast Amhara National Regional State North Wollo and Wag Himra administrative zone with a total population of 1,929,321 according to 2007 Ethiopian population and housing census. All hospitals are Governmental under Amhara National Regional State health bureau.

All hospitals provide different healthcare services such as out-patient, in-patient, emergency, maternal and child health care, medical, surgical, pediatric, gynecology and obstetrics services with the availability of minor and major surgery, HIV / AIDS, ART, VCT, PMTCT,

Map showing Lalibela, THMH and Woldeya Hospitals

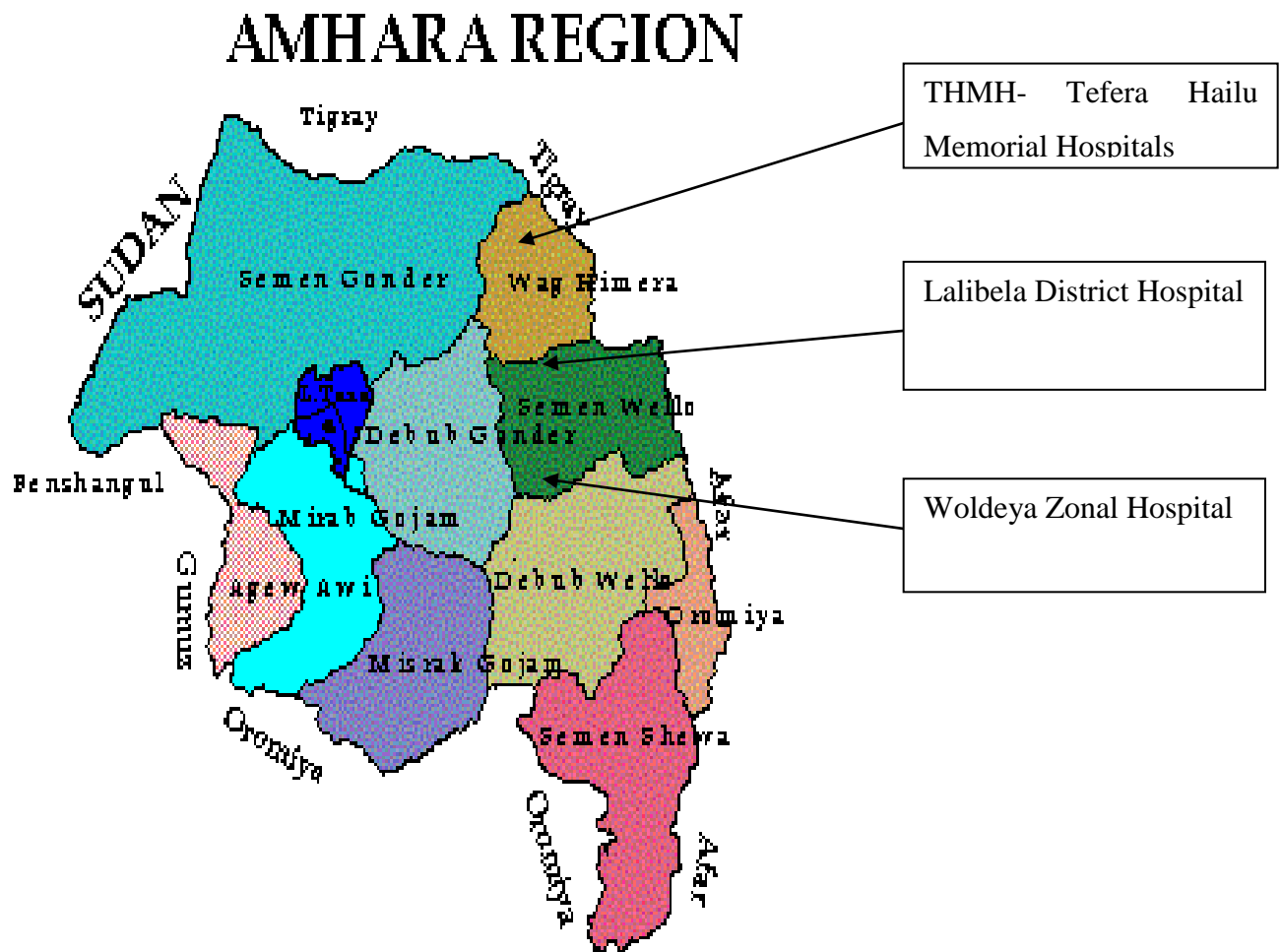


Figure: 2 Map showing Lalibela, THMH and Woldia Hospitals 2011.

4.1.2. Study period

- The study period was from January 2011- March 2011.

4.2. Study Design

A cross sectional facility based quantitative study was conducted.

4.3. Population

4.3.1. Source Population

All adult people living with HIV/AIDS (PLWHA) who are currently on pre Antiretroviral treatment (ART) and antiretroviral treatment (ART) in three selected governmental hospital named Woldeya, Lalibela, and, Tefera Hailu Memorial Hospitals.

4.3.2. Study Population

Sampled adult PLWHA who were currently on pre Antiretroviral treatment (ART) and antiretroviral treatment (ART) care on three selected governmental hospital named Woldeya, Lalibela, and, Tefera Hailu Memorial Hospitals who had clinic visit during the data collection period.

4.4. Sample Size and Sampling Technique

4.4.1. Sample size Determination

For the survey of patients, sample size was calculated using single population proportion calculation formula with a source population size 5054 assuming the proportion of satisfied patients who were attend on pre-ART and on ART to be 78.0%.

with;

n= The Sample from an infinite population

$$Z = \frac{\alpha}{2} \quad \text{critical value at 95\% certainty} = 1.96$$

P= Prevalence of client satisfaction, P = 78.0%, with the service at Felege Hiwot hospital (Bahir Dar) (23).

1-P= Q= negative prevalence proportion

d= marginal error between the sample and the population = 0.05

There for n becomes

$$n = (1.96)^2 \times 0.78 \times 0.22 / (0.05)^2$$

$$n = 264$$

As the study population is less than 10,000 we should adjust the sample size by using correction formula for finite population.

$$nf = \frac{n}{1 + \frac{n}{N}} = \frac{264}{1 + \frac{264}{5054}} = 251$$

=251 + non response rate 10 %

=251 + 25

=276

The sample size was calculated as the above method and the overall sample size was 276. Since the study was conducted in three hospitals of Woldia, Lalibela, THMH, from Amhara National Regional State considered heterogeneity of three populations, sample population were allocated proportionally.

Hospital	Total number of patients on chronic HIV care and treatment	Sample size
Woldeya	4011	219
Lalibela	606	33
Tefera Hailu Memorial	437	24
Total	5054	276

Table 1 Proportional allocation of sample size on three hospitals, assessment of patient satisfaction with HIV care and treatment at Woldia, Lalibela, and THMHs, May, 2011.

4.4.2. Sampling technique

The hospitals were selected by using convenient sampling technique and the study participants were selected from the selected three governmental hospitals, by systematic sampling technique based on the number of ART patient flow. The daily patient flow according to health care provider on each hospital for Woldia, Lalibela and THMH is 100, 20

and 15 respectively. Individual was chosen at regular interval from each sample. The systematic sample was selected from 5054 pre-ART and ART patients. The total sample size is 276, The sampling fraction was $5054/276 = 18$ the sample interval is 18. The number of the first patient included in the sample was chosen randomly by preparing 1-18 pieces of paper if number 4 is picked every 18th patient was included in the sample, starting patient number 4 until 276 patients were selected. The number was selected 4, 22, 40, and 58 etc...

4.5. Inclusion and Exclusion criteria

4.5.1. Inclusion criteria

All PLWHA,

Currently on pre-ART and ART

Age 18 years and above

4.5.2. Exclusion criteria

PLWHA;

Who are not currently on pre-ART or ART?

Not oriented to time, place and person.

Not willing to participate.

Patient's who come from less than one month period of time.

Patients with psychiatric manifestations.

4.6. Data Collection Procedures

4.6.1. Training of data collector and pre test

Members of field staff (data collectors and field supervisors) had given a two days training before the actual data collection. Training includes how to collect data, interviewing techniques, contents of questionnaires, objectives of the study, relevance, applicability of questionnaires discussion of the study objectives, methods of data collection and field

supervision. Furthermore, each question included and the questionnaires were discussed in detail. Moreover, 5% of sample size field practice (pre-test) was undertaken outside the selected (Akesta) hospital subsequently, check appropriateness of wording, format, length, sequencing of questions, any problem faced by the field staff was discussed.

4.6.2. Tools for data collection

Data were collected using questionnaire based interviews composed of questions on demographic information, the nature of interaction with health care provider, quality with the visit problem encountered at the contact time (exist interview) and overall satisfaction, through structured and semi structured questionnaire (Client satisfaction Questionnaire (CSQ – 8 & 18) which was developed by Green field and Atkinson, 1989; Verona service satisfaction scale (VSSA) by Tansella, 1991; and Ryan white client satisfaction survey questionnaire) (43). First it was developed in English and translated into Amharic and back retranslated into English to ensure its consistency.

4.7. Data Analysis Procedures

Completed questionnaires were checked for completeness, consistency and data entry was done by the principal investigator, data cleaning was performed to check for accuracy, consistencies. Any error identified was corrected accordingly & Bi-variants and multivariate analysis statistical test were done to look for any association. Data analysis was performed using chi-scores and odds ratio using SPSS version 16.0 soft ware to look an association between independent variables and the dependent variable. Data on level of satisfaction, collected on a five level Likert Scale: Very satisfied, Satisfied, Neutral, Dissatisfied, Very dissatisfied, was analyzed. To determine the overall satisfaction of the respondents, responses were dichotomized as “satisfied” and “Not satisfied”. Neutral, dissatisfied and very dissatisfied were grouped under “not satisfied”, where as satisfied and very satisfied were grouped under satisfied. Finally the two variables were analyzed using the chi-square test to assess their association between the independent variable and dependent variable. Binary and multivariate logistic regressions were used to determine the independent factors of satisfaction.

4.8. Data Quality Management

The questionnaires were pre-tested before the actual data collection. Training was given for data collectors, supervisors and questionnaire was prepared by Amharic language. Data collectors were informed to check the completeness of each questionnaire at the end of each interview. Supervisors were re-checking completeness of the questionnaire immediately after interview. The principal investigator was also check during submission.

4.9. Study variables

4.9.1. Dependent variables

Patient satisfaction

4.9.2. Independent variables

Socio demographic variables like marital status, sex, age, religion, ethnicity, educational status, occupation, and income

Service related independent variables: waiting time, privacy, confidentiality, consultation, drug availability, laboratory service provision, queue process.

4.10. Ethical Consideration

Ethical clearance was obtained from Jimma University, College of Public Health and Medical Sciences, department of health service management and written study consent to maintain confidentiality, clinician treating PLWHA was requested for clients' consent to participate in the study before they met data collectors for interview. Then those participants willing to participate by using referral paper they would go to private room to meet the data collector for face to face interview. Response of respondents was nameless and data collectors were informed respondents that they have full right to discontinue any time from Lalibela, Woldia, and THMH hospitals were sought. All the study participants were informed about the purpose of the study and their consent was obtained before conducting data collection. Additionally confidentiality of the data to be gained from the interviewee & patient records was seriously respected (secured).

4.11. Dissemination of the results:

The finalized report of this study will be submitted to the Department of Health Services Management, College of Public Health and Medical Sciences, Jimma University and to Amhara National Regional state Health Bureau, North Wollo Health Department, Waghimra Health Department and the study hospitals.

CHAPTER V

5. RESULTS

5.1. Socio-demographic Results

Out of 276 subjects intended to be included in the study 268 (95.7%) patients on ART responded to the questionnaire. The majority of the respondents were females, 145(54.1%), 91(34%) and in the age group of 30 – 39 years old. The mean age of the sample was 35.4 +/- 9.7 years, and the median age was 35 years. One hundred fifty (56.0%) of the clients came from urban areas where as 118 (44.0%) of them were from rural areas.

Ninety seven (36.2%) of the study participants were married. Regarding the educational status 94 (35.1%) were illiterate. 78 (29.1%) clients were merchants, 141 (52.6%) reported that their income earnings were greater than 500 Ethiopian Birr per month. The majorities 166 (61.9%) of the respondents were followers of Orthodox Christian by religion. (Table 2)

Table 2: Socio-demographic characteristics of respondents attending at ART clinics of Woldiya, Lalibela and Tefera Hailu Memorial Hospitals, May 2011(n=268)

Characteristics		Number	Percentage
Sex	Female	145	54.1
	Male	123	45.9
Age (in years)	18 - 29	83	30.8
	30 – 39	91	34.0
	40 – 49	69	25.8
	> 50	25	9.2
Address	Rural	118	56.0
	Urban	150	44.0
Marital status	Single	65	24.3
	Married	97	36.2
	Divorced	41	15.3
	Widowed	65	24.3
Education	Illiterate	94	35.1
	1-6 grade	58	21.6
	7-12 grade	74	27.6
	Certificate & above	42	15.7
Occupation	Gov't employee	64	23.9
	Merchant	78	29.1
	Farmer	71	26.5
	Unemployed	39	14.6
	Daily laborer	15	5.6
	Other*	1	0.4
Income, birr/month	<100	61	22.8
	101-300	58	21.6
	301-500	8	3.0
	≥ 501	141	52.6
Religion	Orthodox	166	61.9
	Muslim	96	35.8
	Catholic	1	0.4
	Protestant	5	1.9

5.1. Level of Satisfaction result

An overall level of patient's satisfaction on antiretroviral treatment (ART) and pre-antiretroviral treatment (Pre-ART) was 60.6% and from this result satisfaction level was higher in Tefera Hailu Memorial Hospital than Woldiya and Lalibela Hospitals, whereas that of Woldiya Hospitals' was higher than Lalibela Hospital which accounted 87.5%, 47.9% and 45.9%, respectively.

From the other determinants of patient satisfaction consultation and support services and queue process to get services were the maximum level of satisfaction with 242 (90.3%) and 232 (86.6%) percent respectively, and the minimum satisfaction level in this study was an Overall waiting time to get healthcare provider and keeping the patients problem Confidentially 65.3% and 72% respectively (Table-3).

Table 3: Clients’ Level of satisfaction with HIV treatment and care services, ART clinics in Woldiya Lalibela and Tefera Hailu Memorial Hospitals May 2011(n=268).

Variables	Satisfied		Not satisfied	
	No	%	No	%
Satisfaction with consultation and support services	242	90.3%	26	9.7%
Queue process	232	86.6%	36	13.4
Satisfaction on Laboratory service to get result	211	78.7%	57	21.3%
Satisfaction on availability of drugs and supply	205	76.5%	63	23.5%
Privacy during examination	202	75.4%	66	24.6%
Information provision by healthcare provider	195	72.8%	73	27.2%
Confidentiality for their problem	193	72%	75	28%
Overall waiting time to get healthcare provider	175	65.3%	93	34.7%
Overall level of Satisfaction	162	60.6%	106	39.4%

The mean level of satisfaction in Woldeya hospital was 76% which was similar with THMH accounted 76.04% but very low in Lalibela hospital (27.75%). In all hospitals the minimum level of satisfaction was observed in waiting time to get health care providers and the maximum level of satisfaction of clients in ART observed in counseling, queue process, and ethical treatment.(Table:4)

Table 4 :-Comparison of level of client satisfaction with different explanatory variables in HIV care and treatment services at Woldiya, Lalibela and Tefera Hailu Memorial hospital, ART clinic May 2011(n=268).

Variables	Woldiya		THMH		Lalibela	
	Satisfied No/%	Not satisfied No/%	Satisfied No/%	Not satisfied No/%	Satisfied No/%	Not satisfied No/%
consultation service	203(96.3)	8(3.8)	22(91.7)	2(8.3)	61(18.2)	27(81.8)
Queue process	200(94.8)	11(5.2)	21(87.5)	3(12.5)	11(33.5)	22(66.7)
Lab service to get result	169(80.1)	42(19.9)	22(91.7)	2(8.3)	20(60.1)	13(39.4)
Availability of drug	169(80.1)	42(19.9)	14(58.3)	10(41.7)	22(66.7)	11(33.3)
Information provision	164(77.7)	47(22.3)	22(91.7)	2(8.3)	9(27.3)	24(72.7)
Overall waiting time	4(1.9)	207(98.1)	2(8.3)	22(91.7)	0(0)	33(100)
Confidentiality	171(81)	40(19)	21(87.5)	3(12.5)	1(3)	32(97)
Courtesy& respect	203(96.2)	8(3.8)	22(91.7)	2(8.3)	6(18.2)	27(81.8)

In bivariate analysis A statistically significant association was observed with sex (P.0.002) COR=0.457(CI. 0.28-0.75), educational status (P.0.000) COR=0.129 (0.056-0.29) address COR 1.99(CI=1.2-3.3) and occupation merchant COR=4.54(2.23-9.23) farmer COR 4.24(2.06-8.73) unemployed COR= 2.85(1.25-6.49) (Table- 5). In multivariate analysis sex, educational status, marital status, and income had significant association. Those male clients were less likely satisfied as compared to female clients (P.0.000) AOR: 0.268 (0.13-0.45), respondents with educational status of diploma and above were less likely

satisfied than that of illiterate With (P.0.003) AOR: 0.123 (CI:0.03-0.49), clients with marital status of married were three times more likely satisfied than that of single P.0.026 AOR: 3.02(CI:1.14-7.97), clients whose income >500birr birr per month were three times more likely satisfied than those whose income less than 100 ETB per month. (P.0.037) AOR: 2.749(CI: 1.06-7.10)

Table 5:- Degree of overall level of client satisfaction with the ART service against socio demographic variables in HIV Woldiya, Lalibela, THMH, ART clinic May 2011(n=268)

Variable		Not Satisfied		Satisfied		Crude OR (95%CI)	Adjusted OR(95%CI)satisf action
		N ₀	%	N ₀	%		
Sex	Female	45	42.5	100	61.7	1:00	1:00
	Male	61	57.5	62	38.3	0.46(0.28-0.75)*	0.27(0.13-0.54)*
Age	18-29	34	32.1	49	30.2		1:00
	30-39	40	37.7	51	31.5		0.79(0.36-1.73)
	40-49	25	23.6	44	27.2		1.99(0.82-4.84)
	>/=50	7	6.6	18	11.1		2.86(0.8110.08)
Educational status							
	Illiterate	25	23.6	69	42.6	1:00	1:00
	1-6	21	19.8	37	22.8		0.78(0.33-1.84)
	7-12	29	27.4	45	27.8		0.82(0.31-2.15)
	Diploma &above	31	29.2	11	6.8	0.13(0.06-0.29)*	0.12(0.03-0.49)*
Address	Urban	70	66.0	80	49.4	1:00	
	Rural	36	34.0	82	50.6	1.99(1.20-3.30)*	1.41(0.71-2.81)
Marital status							
	Single	24	22.6	41	25.3	1:00	1:00
	Married	41	38.7	56	34.6		3.02(1.14-7.97)*
	Divorced	17	16.0	24	14.8		1.49(0.68-3.27)
	Widowed	24	22.6	41	25.3		1.35(0.52-3.49)
Occupation							
Governmental							
	Employee	41	38.7	23	14.2	1:00	1:00
	Merchant	22	20.8	56	34.6	4.54(2.23-9.23)*	1.87(0.63-5.53)
	Farmer	21	19.8	50	30.9	4.24(2.06-8.73)*	1.86(0.52-6.59)
	Unemployed	15	14.2	24	14.8	2.85(1.25-6.49)*	1.79(0.52-6.16)
	Daly Laborer	7	6.6	8	4.9		1.66(0.33-8.41)
	Other**	0	0.0	1	0.6		7.76(0.00-)
Income	<100 Birr	22	20.8	39	24.1		
	100-300	25	23.6	33	20.4		0.91(0.37-2.21)
	401-500	4	3.8	4	2.5		0.47(0.09-2.44)
	>/=501	55	51.9	86	53.1		2.75(1.06-7.10)*

** = Student * = statistically significant

Comparing the relationship between the availability of drugs and supplies; and the level of satisfaction with selected socio-demographic characteristics, it showed that income had significantly associated with (P.0.021). Marital status, sex, age, educational status and address were not statistically significant association with availability of drugs and supply (Table-6). When multiple logistic regressions were applied a statistically significant association was also observed with an income greater than 500 birr per month with AOR=3.326, CI=1.129-9.795, P=0.029.

Table 6:- Comparison of client satisfaction with the availability of drugs by selected soc demographic variable of respondents' in Woldiya, Lalibela and Tefera Hailu Memori Hospitals, ART clinic May 2011 (n=268).

Characteristics	Satisfied	Dissatisfied	Total number	X ²	P-value
Income, birr/month					
1. < 100	42	19	61	9.724	0.021*
2. 101-300	53	5	58		
3. 301-500	6	2	8		
4. > 501	104	37	141		
Marital Status					
1. Never married	42	23	65	7.485	0.058
2. Married	77	20	97		
3. Divorced	35	6	41		
4. Widowed	51	14	65		

* = statistically significant

When testing the relationship between clients satisfaction with the measures taken to assure privacy, with socio demographic characteristics the result showed that sex, educational status, and occupation were significantly associated with satisfaction those

sex with Chi-square 7.631, (P.0.006) educational status clients with Chi-square 14.310, (P.0.003) and occupational with Chi-square 15.241, (P.0.009) were found to be satisfied respectively.

Table 7:- Comparison client satisfaction with the measures taken to assure privacy by selected socio-demographic variable of respondents' in Woldiya, Lalibela and Tefera Hailu Memorial hospitals, ART clinic May, 2011(n=268)

Characteristics	Satisfied	Not satisfied	Total number	X ²	P-value
Sex					
Female	119	26	145	7.631	0.006*
Male	83	40	123		
Educational status					
Illiterate	75	19	94	14.310	0.003*
1-6 (primary)	47	11	58		
7-12 (secondary)	58	16	74		
Diploma and above	22	20	42		
Occupation					
Gov't employee	37	27	64	15.241	0.009*
Merchant	62	16	78		
Farmer	56	15	71		
Unemployed	34	5	39		
Daily laborer	12	3	15		
Other**	01	0	01		

** = Student, *= **statistically significant**

In multivariate analysis age, marital status, and occupation had significant association. Those age between 30-39 years old with (AOR=2.96, CI=1.24-7.14) were 3 times more likely satisfied than that of younger ages (18-29), the age group between 40-49 years old (AOR=4.34, CI=1.62-11.64) and the age \geq 50 years old (AOR=5.87, CI=1.54-22.32) were four and six times more likely satisfied than that of younger ages (18-29) respectively.

When we compare the marital status of clients married clients (AOR=0.30, CI=0.12-0.80) were less likely to be satisfied than that of single clients, and divorced (AOR=0.23, CI=0.07-0.75) and widowed (AOR=0.17, CI=0.06-0.53) were less likely satisfied than that of single respondents. Occupationally unemployed client (AOR=5.57, CI=1.21-25.69) were six times more likely satisfied than that of governmental employee (Table;-8).

Table 8– Degree of client satisfaction with the measures taken to assure privacy by selected socio-demographic variable of respondents' in Woldiya, Lalibela and Tefera Hailu Memorial hospitals ART clinic May, 2011(n=268)

Variables	Not satisfied		Satisfied		Crud OR (95% CI)	Adjusted OR (95%CI) for Satisfied
	No	%	No	%		
Sex						
Female	26	39.4	119	58.9	1:00	1:00
Male	40	60.6	83	41.1	0.45(0.26-0.80)*	0.25(0.11- 0.54)
Age						
18-29	25	37.9	58	28.7	1:00	1:00
30-39	20	30.3	71	35.1	1.53(0.77-3.03)	2.96(1.24-7.14)*
40-49	16	24.4	53	26.2	1.43(0.69-2.96)	4.34(1.62-11.64)*
>/=50	5	7.6	20	9.9	1.72(0.58-5.11)	5.87(1.54-22.32)*
Educational Status						
Illiterate	19	28.8	75	37.1	1;00	1:00
1-6	11	16.7	47	23.3	1.08(0.47-2.48)	1.44(0.52-3.98)
7-12	16	24.2	58	28.7	0.92(0.44-1.94)	1.25(0.40-3.85)
Diploma &above	20	30.3	22	10.9	0.28(0.13-0.61)*	0.37(0.09-1.59)
Marital status						
Single	12	18.2	53	26.2	1:00	1:00
Married	26	39.4	71	35.1	0.62(0.29-1.34)	0.30(0.12-0.80)*
Divorced	12	18.2	29	14.4	0.55(0.22-1.37)	0.23(0.07-0.75)*
Widowed	16	24.2	49	24.3	0.69(0.29-1.61)	0.17(0.06-0.53)*
Occupation,						
Governmental	27	40.9	37	18.3	1:00	1:00
Employee						
Merchant	16	24.2	62	30.7	2.83(1.35-5.93)*	1.75(0.53-5.77)
Farmer	15	22.7	56	27.7	2.72(1.28-5.79)*	2.65(0.64-10.92)
Unemployed	5	7.6	34	16.8	4.96(1.72-14.35)*	5.57(1.21-25.69)*
Daly Laborer	3	4.5	12	5.9	2.92(0.75-11.36)	4.09(0.59-28.58)
Other**	0		01		1.18(0.00-)	1.88(0.00-0.00)

** = Student, *= statistically significant

Table nine shows the marital status and income were significantly associated with client satisfaction the courtesy and respect by the health worker, those who are married respondents with (P. 0.003) and monthly income greater than five hundred Ethiopian birr with (P 0.004) were found to be satisfied respectively.

Table 9:- Comparison of client satisfaction with courtesy & respect by health workers by selected socio-demographic variable of respondents' in Woldiya, Lalibela and Tefera Hailu Memorial Hospitals, ART clinic May, 2011(n=268).

Characteristics	Satisfied	Not satisfied	Total number	X ²	P-value
Marital status					
1. Never married	63	2	65	14.016	0.003*
2. Married	78	19	97		
3. Divorced	31	10	41		
4. Widowed	59	6	65		
Income, birr/month					
1. < 100	52	9	61	13.295	0.004*
2. 101-300	44	14	58		
3. 301-500	05	03	8		
4. > 501	130	11	141		

*= **statistically significant**

Table ten shows that regarding time taken for the different services, 147 (54.9%) responded that they reached to hospital for the time between 30 minute to 1 hours while 90(33.6%) stated that they waited for 211 – 270 minutes in the waiting area to get the services. One hundred ninety one (71.3%) reported that they waited for 6 – 9 minutes to

be seen by the ART staffs, one hundred ninety four (72.4%) waited for more than or equal to 30 minute to give laboratory specimen for investigation,, while Two hundred forty one (90.3%) stated that they had to wait for less than ten minutes to collect drugs from dispensary (table 10).

Table 10:- Comparison of traveling and waiting times of clients at different service points to get HIV treatment and care services in Woldiya, Lalibela and Tefera Hailu Memorial Hospitals, ART clinic May, 2011(n=268).

Variable	Frequency	Percent
Traveling time to reach hospital		
• 30 min - 1hr	147	54.9%
• 61 min - 2hrs	28	10.7%
• 1-2 hrs - 3hrs	57	21.3%
• >3 hrs	36	13.4%
Total waiting time to get service		
• 30 min - 90 min	78	29.10%
• 91 min - 150 min	42	15.70%
• 151 min - 210 min	52	19.40%
• 211 min - 270 min	90	33.60%
• 271 min - 330 min	2	0.70%
• >2 days	4	1.50%
Time spent with consultation with HIV		
• 2 - 5 min	42	15.7%
• 6 - 9 min	191	71.3%
• 10 - 15 min	27	10.1%
• > 15 min	8	3.0%
How long it took to give lab specimens		
• <30 minutes	194	72.4%
• >30 minutes -1 hour	50	18.7%
• 1 hour-2 hour	8	3.0 %
• >2 hour	5	1.90%
How long it took to collect drugs		
• ≤ 10 minutes	241	90.30%
• 11 min - 30 minutes	24	9.0%
• > ½ hour - 1 & ½ hour	2	0.70%
• >1 ½ hour - 2 & ½ hour	1	0.40%

Table eleven shows the relationship between the clients waiting time to receive the services in the HIV care and treatment services. Those clients who were waited to get the service in between 91 – 150 minutes, those clients waited for 6 – 9 minutes for consultation and those clients who were waiting for 11 – 30 minutes to collect drugs from dispensary had significant association. The finding was statistically significant association observed on traveling time with (P=0.001), time spent with consultation (P=0.001) and time taken to collect drug (P=0.029). There was a significant association result observed for total waiting time spent with consultation and collect drugs from dispensary when multiple logistic regressions were applied.

Table 11:- Comparison of client satisfaction with the waiting time to get different services in Woldiya, Lalibela and Tefera Hailu Memorial Hospitals, ART clinic May 2011(n=268).

Variables	Satisfied Number (%)	Dissatisfied Number (%)	Total number	X ²	P-value
Traveling time to reach hospital					
• 30 min - 1hr	86 (46.9)	61 (71.8)	147	16.936	0.001*
• 1 hr - 2hrs	19 (10.4)	9 (4.9)	28		
• 2 hrs - 3hrs	48 (26.2)	9 (4.9)	57		
• >3 hrs	30 (16.4)	6(7.05)	36		
Time spent with consultation					
• 2 - 5 min	21 (11.47)	21 (24.7)	42	22.636	0.001*
• 6 - 9 min	146(79.78)	45(52.9)	191		
• 10 - 15 min	14 (7.65)	13 (15.29)	27		
• > 15 min	2 (1.09)	6 (7.05)	8		
How long it took to collect drugs					
• ≤ 10 minutes	171 (93.4)	70 (82.3)	241	9.028	0.029*
• 11 - 30 minutes	11 (6.0)	13 (15.29)	24		
• > ½hr - 1 & ½hr	0 (0.0)	1 (1.1)	1		
• >1 ½ hr - 2 & ½ hr	1(0.54)	0(0.0)	1		
• >2 & ½ - 3 & ½ hr	0 (0.0)	0 (0.0)	0		
• >3 & ½ hours	0 (0.0)	0 (0.0)	0		

*= statistically significant

Patients who were waiting time from 91-150 minutes with (P-0.03, AOR-0.33(0.12-0.89) to health care providers to get service were less likely satisfied than those who were waiting time from 30-90 minutes. Patients who were waiting time from 151-210 minute (P-0.001, AOR-0.17(0.06-0.45), 211-270 minutes (p-0.001, AOR-0.16 (0.06-0.4) were less likely satisfied than those who were waiting time from 30-90 minutes. Patients who were having time for consultation with health care providers from 10-15 minutes (p-0.048, AOR-0.27(0.08-0.98) were less likely satisfied than those who stayed with health care providers 2-5 minutes.

Consultation services for those feeling comfortable, in asking questions for their clinicians they received majority of the clients 136 (50.7%) usually 88(32.7) Sometimes 39(14.6%) always the rest, 1.1% and 0.7% not very often and never to receive consultation respectively (Table 12).

Table 12:- Percentage of consultation service finding with HIV care and treatment services in Woldiya, Lalibela and Tefera Hailu Memorial hospital, ART clinic May, 2011(n=268).

Variable	Client /Service users response										
	Always		Most of the time /usually		Some time		Not very often		Never		Frequency total
Consultation service	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Fre q.	%	Freq.%
Feeling comfortable in asking questions	39	14.6	136	50.7	88	32.7	3	1.1	2	0.7	268 (100)
Getting answer to your problems	50	18.7	185	69.0	25	9.3	6	2.2	2	0.7	"
Received explanation about the medication	148	55.2	97	36.2	18	6.7	5	1.9	0	0	"
Participated in decision making on treatment	39	14.6	170	63.4	55	20.5	3	1.1	1	0.4	"

From the total 268 clients 185 (69.0%) have got answer to the question they have asked usually, when compare to got answer always 50 (18.7%), sometime 25 (9.3%), Not very often 6 (2.2%) never 2 (0.7%).

Regarding counseling services the most frequent one that respondent received, to felt comfort in sharing personal and confidential Information 201 (75.0%) usually, 41 (15.3%) always, 23(8.6%) some time, and the least one 3 (1.1%) not very often. According the users were questioned how much the counseling service helped them to improve problems and feelings and their response were 194 (72.4%) usually, 40(14.9) always 30(11.2) some times, 2(0.7) not very often, 2(0.7)never, respectively. (Table13).

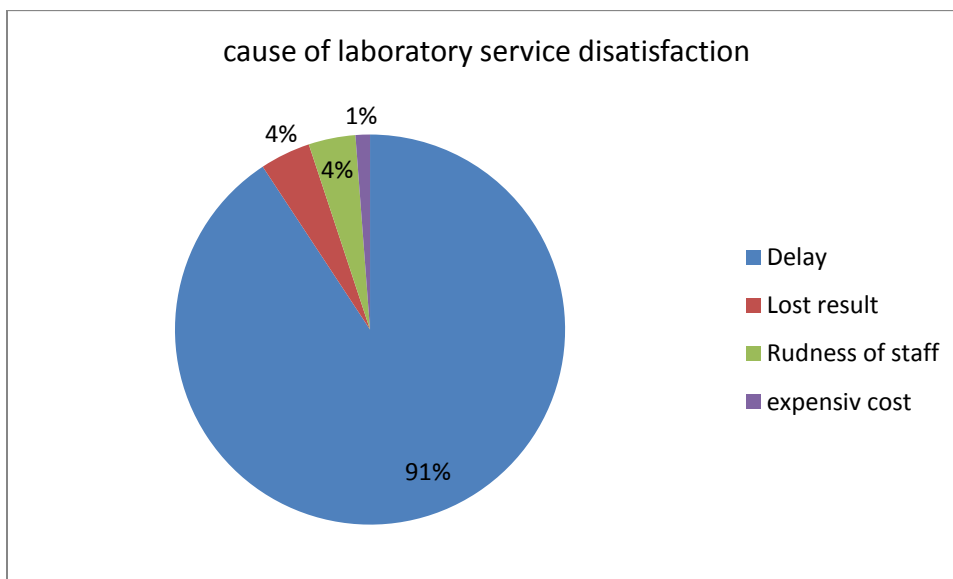


Figure 3:- laboratory service causes of dissatisfaction in Woldiya, Lalibela and Tefera Hailu Memorial hospital, ART clinic May, 2011(N=268).

On the inquiry that made to the laboratory service users for causes of dissatisfaction they expressed 235(91%) delay, 11(4.2%) lost result, 10(3.9%) rudeness of staff, 3(1.2%) expensive cost (Figure3).

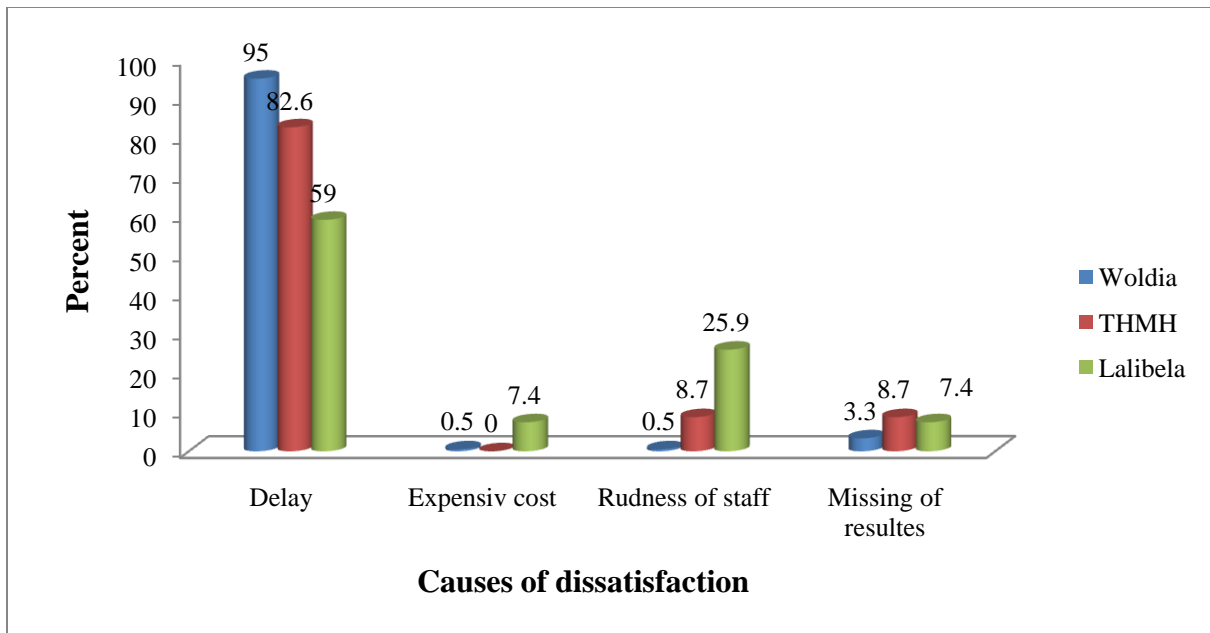


Figure 4: Causes of Laboratory dissatisfaction at each hospital in Woldiya, Lalibela and Tefera Hailu Memorial hospital, ART clinic May, 2011.

The major cause of dissatisfaction was delay to get laboratory results at each hospital while missing of results has the second identified problem and the third cause of dissatisfaction was rudeness of staffs in laboratory service. Delay to get laboratory result was the major cause of dissatisfaction at each hospitals which accounts 94.8%,82.6%,and 59% in Woldia, THMH and Lalibela hospitals respectively. Whereas the second cause of dissatisfaction was missing results at THMH 8.7% for, Lalibela 7.4 % and3.3% Woldia hospitals.

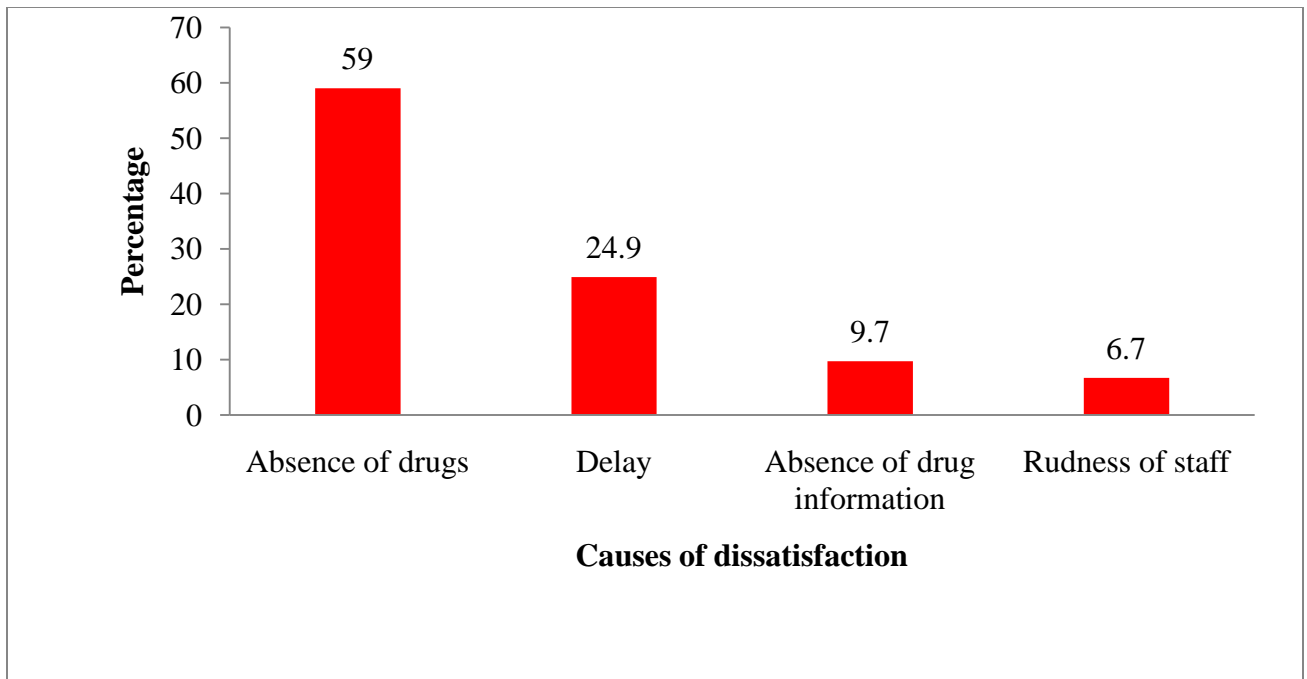


Figure 5:- Pharmacy service causes of dissatisfaction in Woldiya, Lalibela and Tefera Hailu Memorial hospital, ART clinic May, 2011.

From the total respondents 209(78%) of them were dissatisfied with ART pharmacy service. The major cause of dissatisfaction in ART pharmacy service was Absence of drugs 123(59.0%), delay 52(24.9%), absence to deliver drug information 20(9.7%) rudeness of staff 14(6.7%) (Figure 5).

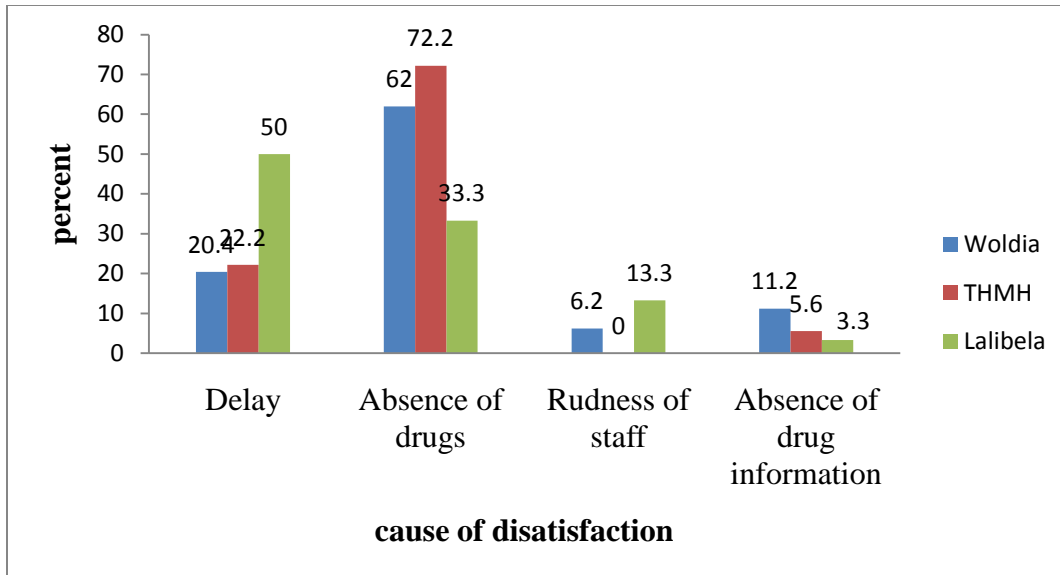


Figure 6: Causes of dissatisfaction in the pharmacy service at each hospital in Woldiya, Lalibela and Tefera Hailu Memorial hospital, ART clinic May, 2011.

Absence of medications was the major cause of dissatisfaction at THMH (72.2%) and Woldiya Hospitals (62%) whereas delay was the major cause of dissatisfaction at Lalibela Hospital (50%). Absence of provision of drug information to patients was the problem of Woldeya hospital 11.2% than Lalibela 3.3% and THMH 5.6%. Rudeness or inhumanness of the staff in pharmacy services at Lalibela hospital was relatively higher than Woldeya hospitals.

CHAPTER VI

6. DISCUSSION

In this study level of client satisfaction of patient with HIV care and treatment and factors for dissatisfaction services was assessed in Woldiya, Lalibela and Tefera Hailu Memorial hospital. This study has showed that the average overall satisfaction level in Woldiya, Lalibela and Tefera Hailu Memorial hospital of ART clinic was 60.6%. This satisfaction level report lower when compared to the reports of the two studies conducted in ART clinic in Felegehiwot referral hospital, 78%, 70.9% ^(27,5). This difference could be due to as Felegehiwot hospital is regional, and access able to resources special attention was given since it is found regional city in resource distribution.

And it was higher when compared to the reports of the studies conducted in Jimma University Specialized Hospital and Harari region Zonal hospital 57.1%, 55%, respectively ^(36, 38). The suggested reasons for this difference could be related to better commitment by the concerned higher Governmental officials with integration of bilateral non-governmental organization and the efforts made to make changes in the service delivery process of the hospital and practice the hospital reforms by involving their staffs that insisted them to assess the existing problems and better management in the hospital in the last three years.

Client satisfaction can be considered in the perception of patient, assessment of their desires and expectation of health care, one of the factors that influence, patient satisfaction is efficiency of services provided to patients. The efficiency of service refers to the promptness of the care given to patients, including issues like waiting time before consultation, duration of consultation, methods of VCT, quick dispensary of drugs ⁽³⁸⁾.

A Study done in Burkina Faso showed that the delivery of HIV-related services is related with users' satisfaction waiting time due to the nature and seriousness of chronic disease that might require more attention from the healthcare provider than other medical conditions⁽²³⁾. This study showed that the total waiting time for the majority of the (90) ART clients were for 211- 270 minutes and this result was higher with the study findings in Jimma hospital 180minutes (25).this difference might be due to the number and type of professional availability in both hospitals.

In this study, 67(74.4%) of the respondents, who waited for 211-270 minutes, were satisfied for the total waiting time to get service. Another study done in Felege Hiwot referral hospital Bahir Dar the study stated that 31.3% respondents claimed they were waiting for $\geq \frac{1}{2}$ hour to get ART service, supported by the result of in depth interview in which almost all of the participants mentioned that long waiting time to get the service as one of the reason for client dissatisfaction ⁽⁵⁾.the possible reason for this different could be different in the number of patient and healthcare provider.

Majority of respondents, 194(72.4%), stated that the waiting to get lab results to be less than 30 minutes. Similar study was done in Jimma hospital 91.3% waited for more than 15 minutes to get laboratory service. This difference might be due to the increasing staff in the laboratory department and the given attention by the government and nongovernmental organizations to the ART clinic ⁽²⁹⁾.

According to a study conducted in rural Bangladesh, the most powerful predictor for client satisfaction with the Government services was health provider respect and politeness for patients this aspect was much more important than technical competence of the provider ⁽²⁵⁾.

Concerning client satisfaction on measures taken to assure privacy during examination were 75.4%. This finding was equivalent when compared with an exit interview done to assess satisfaction with services related to HIV in health facilities of Ethiopia (87%) ⁽²⁴⁾ Other study conducted in South Africa showed (77.9% of the respondents as satisfied with respect to privacy during examination ⁽³³⁾.

Regarding consultation time in this study majority of clients 191(71.3%) time spent for 6–9 minutes with their healthcare provider. Of these 146(76.4%) were satisfied. 42(15.7%) of clients spent 2–5 minutes with their physicians from which 21(50%) were satisfied. In other study Singh and Co-workers found on their study 3 minutes as duration of examination and with this result from the study population 207 spent for 6–9 minutes and their degree of satisfaction showed 39.8% satisfied, on the other hand clients who have consultation time of 10-15 minutes, were satisfied 19.5% ⁽³⁴⁾. Generally when the time is longer the satisfaction level is increased may be due to the value given to longer consultation time that gives the opportunity to be examined better and discuss their health matter with their physician or clinicians better. Of the respondents 242(90.3%) were satisfied with the time they spent with

the healthcare provider. The result of this study was better with the study done in Benin City, Edo-state Nigeria that indicated 84% clients were satisfied with the amount of time spent with doctors, while 16% were not satisfied⁽²¹⁾. This difference might be due to type and difference in the activities they perform in their respective hospital.

The exit interviews with patients enrolled in the free charge of ART programs provided useful insights into the patient's satisfaction with ART related services at the ART clinic, with respect to both the general services and the services provided by all health staff. In this study we found that 76.4% of the patients were satisfied with the pharmacy department in the case of availability of drug and supplies. This is higher when compared with that of the study conducted by annals of African medicine 2005, in developing country where 56% of the patients were satisfied⁽²²⁾

This might be due to the direct supply of drugs and supplies from the pharmaceutical supply agency and may be due to the difference in the number and type of health care providers in these mentioned service delivery places and the difference in the activities they run in their respective areas.

In the Bivariate analysis, when comparing the relationship between the availability of drugs and supplies and the level of satisfaction with selected socio-demographic characteristics it showed that an income status > 500 Birr per month were satisfied compared, to the clients with monthly income between 301-500 (P-value<0.021) and those, earned low income birr per month less dissatisfied than high income which is significantly associated in multiple logistic regression were applied to the difference. When multiple logistic regressions were applied a statistically significant association was also observed with an income greater than 500 birr per month with AOR=3.326, CI=1.129-9.795, P=0.029.

In this study in the assessment indicated that 241(90.3%) of clients waited to collect their drugs for <10 minutes, 24(9%) 11-30 minutes, 1(0.4%) 60-90 minutes and 1(0.4%) more than 90-150 minutes respectively. In regard to the overall level of satisfaction rate were 71% with time of waiting <10 minutes whereas 45.8% for waiting 11-30 minutes. By a study at Addis Ababa, out of 156 respondents, 114 (73.1%) of the respondents very satisfied to get their

pharmacy service within 1-10 min, remain 31 (19.9%) satisfied, 8 (5.1%) dissatisfied and 3 (1.9%) very dissatisfied. Similarly, among the 116 participants, 53 (45.7%) point out that they are very satisfied, 50 (43.1) satisfied, 9 (7.8%) dissatisfied and 4 (3.4%) very dissatisfied when the service is provided within 11-30 min.

This difference might be due to high patient flow in the capital city than the regions additionally the recent increase of staff profile in the pharmacy sector.

From the 268 respondents who received laboratory service, 41 study subjects expressed that they waited for less than 30 minutes to get results from the laboratory service, 19 waited for 30-60 minutes, 183 within 1-2 hours, and 23 for greater than 2 hours. In terms of satisfaction from laboratory service users 69.6% were satisfied. This result was equivalent when compared with the study done by Annals of African medicine in 2005 that identified 73.2% satisfaction⁽²²⁾.

Reasons for dissatisfaction in the laboratory service revealed that 235(87.7%) delay in receiving result, 11(4.1%) missing results, and 10(3.7%) rudeness of staff respectively.

This result shows variation with the study done by Annals of African medicine in 2005 that shows 48.4% delay receiving results 10.9% rudeness of staff and 7.8% missing results respectively⁽²²⁾.

Saul NW, *et al* on his study showed that the most common service quality problems involved waits and delays, problems with communication between staff and patients, and environmental issues and amenities⁽³⁰⁾.

Therefore in the laboratory department the major complaints were also delay, rudeness of staff and missing results. The above problems arises because of the nature of the specific laboratory procedures & most of the laboratory unit to collect specimen for CD4 analysis till 12 am it took long weighing time to prepare the result and now a day's transportation of specimens from health centers to each hospitals 10 ,6,and 2 health centers to Woldiya, THMH and Lalibela hospitals this increment of pre ART and ART client to the ART clinic of each hospital also create another burden for the CD₄+ counter machine. And this might lead to delay for customers.

Analysis of overall level of client satisfaction by selected socio-demographic characteristics showed that educational status, respondents who were not educated (illiterate), those who live

in rural area and whose income > 500 Birr per month more satisfies as compared to those with educational status of diploma and above, and those of urban in residence and income < 100 Birr per month. This finding is similar in line with other studies, Wallin *et al* ⁽³⁹⁾ didn't find correlation between age and client satisfaction.

When we look participants' educational status, less educated clients have higher satisfaction. This is attributed to the expectations of an individual; those educated people may have high expectation than less educated. So situations that can satisfy less educated peoples may not satisfied better educated people. In this study 21.3% illiterate respondents were satisfied compared to 12.1% who had diploma and above; this is similar with the Alasad and Ahimed ⁽⁴⁰⁾ study in which less educated patients tended to have high satisfaction.

5.2. Strength of the study

The study deals with an important component of output indicator of health care service.

5.3. Limitation of the Study

- Social desirability bias since the client interviewed in the hospital at exit and relatively short lived they feel more satisfied immediately after their consultation than they do after this may lead in an exaggerated satisfaction rate.

CHAPTER VII

7. CONCLUSION & RECOMMENDETION

5.4. CONCLUSSION

Now a days number of clients was increasing and HIV is a sensitive illness which needs physical as well as psychological support, ART clients were found to be highly satisfied, perceived a great deal of positive change in their quality of life, this leads them to satisfactory adherence. Most of the result finding showed that in areas of HIV care and treatment services were Satisfactory, and even though majority of the study populations are satisfied those who are dissatisfied with service provision of the ART clinic of Woldiya, Lalibela and Tefera Hailu Memorial hospitals. The main causes of dissatisfaction in HIV care/treatment were long waiting time to get healthcare provider, not keeping patients problem (confidentiality), delay in service provision, rudeness of staff, lack of regular counseling and consultation service, missing results and stock out of opportunistic infection drugs in the ART pharmacy area.

Recommendation

- It is important to dig out the opinion of clients to demonstrate their degree of satisfaction with the available service to improve on quality and efficiency of health service.
- Awareness of health professionals about the importance of continuous follow up of their clients and providing information about their condition and benefits gained.
- PLWHA has a great opportunity with the ART service provision based on my study I would like to recommend the followings.

- The management committee should discuss with staffs about the problem observed in laboratory and pharmacy service area and priority should be given to Drug and Therapeutic Committee to improve drug availability and patient education on the antiretroviral treatment drug uses.
- Improve the Waiting time by providing scheduling service hours in a way that clients can be encouraged and use it appropriately.
- Creating (giving training) professional ethics should be undertaken as inhumanness (rudeness) was cited as the major cause of dissatisfaction at each hospital.
- The problem identified on patient satisfaction should be well discussed with all hospital staffs.
- The hospital multi-disiplinary team should arrange health education session for those patients' not married and male clients about general activities of ART services.

8. REFERENCES

1. UNAIDS, AIDS Epidemic update /Global summary, 2009. Available at http://data.unaids.org/pub/Report/2009/JC1700_Epi_Update_2009_en.pdf, accessed on 2 September 2010.
2. Ministry of Health, Guideline for Use of Antiretroviral Drugs in Ethiopia, January 2005. Available at <http://liberiamo.org/Policies%20&%20Plans/Integrated%20Guidelines%20for%20HIV-AIDS%20Testing,%20Care,%20Treatment.pdf> accessed on 4 June 2010.
3. Ministry of Health, Single Point HIV prevalence Estimate, June 2007. www.ethiomedic.com/.../311-singlepointshivprevalenceestimatejune2007.html
4. Ministry of Health, National HIV/AIDS prevention and control office, AIDS in Ethiopia 6th report Sept 2006. Available at www.etharc.org/aidsineth/publications/AIDSinEth6th_en.pdf accessed on 6 June 2010.
5. Almaz T. Assessment of Quality of Antiretroviral Therapy Service in Felege Hiwot Hospital Bahir Dar. EPHA Sponsored Master's Theses Extracts on HIV/AIDS 2009 Dec: 8.
6. Federal Ministry of Health. Quality of HIV/AIDS services in health facilities of Ethiopia, Aug 2009.
7. World Health Organization Regional Office for the Eastern Mediterranean a practical guide Quality improvement in primary health care, Cairo 2004.
8. CF Hekkink, H J Sixma, L Wigersma, C J Yzermans, J T M van der Meer, P J E Bindels et al an instrument for assessing quality of HIV care from the patients' perspective. Qual Saf Health Care 2003;12: 188–193.
9. Avedis Donabedian, An Introduction to Quality Assurance in Health Care, National Association of State Units on Aging (New York: Oxford University Press, 2003).
10. C. van Campen, H. J. Sixma, J. J. Kerssens, L. Peters and J. J. Rasker, Assessing Patients Priorities and Perceptions of the Quality of Health care; The Development of the QUOTE Rheumatic Patients instrument 2009; 30:159–167.

11. Wu A, Gifford A, Asch S. Quality of care indicators for HIV/AIDS; A discussion paper for the Foundation for accountability, Sep 1998.
12. K. KARUNAMOORTHY, M. RAJALAKSHMI, S. MAKESH BABU, A. YOHANNES. European Review for Medical and Pharmacological Sciences, HIV/AIDS patient's satisfactory and their expectations with pharmacy service at specialist antiretroviral therapy (ART) units Governmental hospitals of Addis Ababa 2009; 13: 331-339.
13. Bensing J. Doctor-patient communication and the quality of care. Soc Sci Med 1991;32: 1301-10.
14. Potts MK, Mazucca SA, Brandt KD. Views of patients and physicians regarding the importance of various aspects of arthritis treatment: Correlations with health status and patient satisfaction. Patient Educ Couns 1986; 8: 25-34.
15. Haslock I. Quality of care and patient satisfaction. Br J Rheumatol 1996; 35:382-4.
16. Bowling A. Measuring disease: A review of disease-specific quality of life measurement scales. Buckingham: Open University, 1995.
17. Van Campen C, Friele RD, Kerssens JJ. Methods for assessing patient satisfaction with primary care: Review and annotated bibliography. Utrecht: NIVEL, 1992.
18. Batalden PB, Nelson EC. Hospital quality: Patient, physician and employee judgements. International Journal of Quality Assurance 1991; 3 :7-17.
19. Jane K. Burke-Miller, Judith A. Cook, Mardge H. Cohen, Nancy A. Hessel, Tracey E. Wilson, Jean L. Richardson et al. Longitudinal Relationships between Use of Highly Active Antiretroviral Therapy and Satisfaction with Care among Women Living With HIV/AIDS. American Journal of Public Health 2006 June; 96 (6):1044.
20. Young GJ, Meterko M, Desai KR. Patient Satisfaction with Hospital Care effects of demographic and Institutional Characteristics 2000 March; 38(3):325-334.
21. Bernhat HM, Wiadnyana IGP, Wihardjo H, Pohan I. Patient satisfaction in Developing countries. Social Science and Medicine 1999; 48:989- 996.
22. A.N. Ofili and C.E. Ofove patient assessment of efficiency of service at a teaching hospital in a developing country by Annals of African Medicine, 2005; 4: 150-153.

23. Harounan K, Seni K, Laetitia N. Ouedraogo, Elisa R, Mead O, Damien de W. HIV/AIDS Services Delivery and Overall Quality of Care and Satisfaction in Burkina Faso 2009 Dec 2.
24. Federal Ministry of health, Quality of HIV/AIDS Services in Health Facilities of Ethiopia, August 2009.
25. Jorge Mendoza Aldana, Helga Piechulek, Ahmed Al-Sabir. Client satisfaction and quality of health care in rural Bangladesh .World Health Organization 2001; 79 (6).
26. I-TECH's Quality Improvement Program. Monitoring Patients Lost to Follow-Up (LTFU) in Ethiopia (2007).
27. Yibeltal kA, Oluma YB, Ayalew TM. Evaluation of HIV/AIDS Clinical Care Quality: The case of a referral hospital in North West Ethiopia. International journal for Quality in Health care; 2009 Aug 21(5):356-362.
28. Zewdie B, Tsion A, Mirkuzie W, Sudhakar M. Determinants of satisfaction with health care provider interactions at health centers in central Ethiopia: a cross sectional study. Bio Med Central Health Services Research 2010, 10:78.
29. Helena G, Abraham H, Ayalew T. Client satisfaction with Anti Retroviral therapy services at Jimma University specialized hospital. Ethiop J Health science; 2008 July: 18(2).
30. Saul NW, Odelya P, Daniel ZS, Joseph MI, Mark DA, Roger BD, et al, Patient-reported service quality on a medicine unit. Int. Journal for quality in health care 2005 Sep 18; (2):95-102.
31. Lulsegd T. Measuring Quality of life of PLWHA on HAART. In Zenebework Hospital Addis Ababa 2006 Jun.
32. Araya A. Assessment of Quality of Antiretroviral Therapy Services in Governmental Hospitals in Addis Ababa 2007 Mar.
33. Karl Peltzer. Patient experiences and health system responsiveness in South Africa. Health Promotion Research Unit, Social Aspect of HIV/AIDS and Health, Human Sciences Research Council, Pretoria, BMC Health Services Research 9 2009: 117.

34. UNAIDS report on the global AIDS epidemic / 2010.
35. World Health Organization, client satisfaction evaluations: work book 6, 2006.
36. Lemmesa O, Solomon G .Satisfaction with outpatient health services at Jimma hospital, south west Ethiopia. *Ethiop. J. Health Dev.*2001; 15(3): 179-184.
37. Guide to Assessing Client Satisfaction January 2001.available at www.hst.org.za accessed on16 November 2010.
38. Birna A. The quality of hospital services in eastern Ethiopia: Patient's perspective *Ethiop.J. Health Dev.* 2006; 20(3):199-200.
39. Wallin E.undergen, P.ulanneder K.and holstien C.does age geneder and educational background affect patient's satisfaction with short stay surgery *Ambulatory surgery* 2000; 8:79-88.
40. Jafar .A. Alasad and Muayyad M.ahemed. Patient's satisfaction with nursing care in Jordan/*international J. of health care.* 2003,9: 43-53.
41. Margaret s. Westaway, Paul rheeder, Danie g.vanzyl and John R.Seager; international and organizational dimensions of patient satisfaction: the moderating effects of health status, *international journal for quality in health care* 2003; 15(4) 337-344.
42. UNFPA, *The impact of HIV/AIDS: A Population and Development Perspective*, New York, 2003.
43. Attkisson, C. C. Zwick, R Client Satisfaction Questionnaire: Psychometric properties and correlations with service utilization and psychotherapy outcome. *Evaluation and Program Planning*; (1982) 6, 299-314.

ANNEXES

Annex 1: Information sheet

Good morning/good afternoon. My name is _____. I came from Jimma University. I am working for an investigator doing this thesis for the partial fulfillment of masters in health care and hospital administration. I would like to ask you few question about your satisfaction with HIV care and treatment the services you receiving on antiretroviral treatment clinic. This will help me to identify some of the level of satisfaction and factors for dissatisfaction services based on your answer to my questions.

You have full right to refuse, withdraw or completely reject part or all of your participation in the study. But we encourage your full participation as the answers you give on this form are very important to this study and to plan ways to help other people who must take ART on a difficult situation.

I would like to assure you that all of your responses to our questions will be kept confidential throughout the study process. Any of your information you provide will be used only by the researcher and will, by no means, be revealed to a third party. I will ask you questions in a place where other people or conditions couldn't interfere. I would like to assure you that your participation on this research will not affect any of your treatment and other benefit that you get from any organization. I would be thankful if you spend some time with me answering questions related to the issues described above. The interview will take 35-45 minutes.

Contacts: If you have any question or concerns at any time related to this study or your rights as a participant, you may contact.

Name	Abera Assefa
Phone number	0914602959
E-mail	abera_assefa2006@yahoo.com

May I get your permission to continue my interview?

1 Yes 2. No-→stop

5.5.

Do I have your permission to continue?

1 – If yes, continue to the next page

2 – If no, skip to the other participant

Interviewer's name and code-----, signature-----

Date of interview-----, Time started _____, Time finished -----

Supervisor's name -----, Signature -----

I thank you for your cooperation

Annex II : Structured patient Satisfaction Questionnaire

Thank you for being our client. Our goal is to provide you with excellent service. We understand that excellence is not only measured by what we do for you, but also by how we do it and it has to be determined in your eyes. In order to serve you and other clients better, please take a few minutes to give us your candid evaluation of your experience in this organization. You are kindly requested to give your honest opinion whether they are positive or negative.

Direction for interviewer

Read the questions carefully and make sure the respondents understand the question. Mark/write the response given by the respondent on the space provided. According to the questions the respondents can select one option, select more than one option, or give

word/words. Age should be completed in complete years. Others time durations should be recorded according to the specification on each questions.

Questionnaire Code _____

GENERAL INSTRUCTION

All questions have pre-coded response. It is therefore very important to follow the following instructions while you are interviewing respondents and recoding their answers.

_Ask each question exactly as it is written on the questionnaire.

_Do not read the pre code response to respondents. Listen only to the response of respondents.

_Circle the response in the response column that best matches the answer of the respondent

PART ONE: SOCIO – DEMOGRAPHIC CHARACTERISTICS

S.No	QUESTIONS	RESPONSE	CODE
001	Sex	1. Male 2. Female	
002	Age (in years)		
003	Address	1.Urban 2. Rural	
004	Marital Status	1-Single 2 –Married 3 –Divorced 4 –Widowed	
005	Educational Status	1 Illiterate 2 Grade 1 – 6(primary) 3 Grade 7 – 12(Secondary)	

		4 – Diploma and above	
006	Occupation	1 – Governmental employee 2 – Merchant 3 – Farmer 4 – No job/unemployed 5--daily laborer 6 – Other(specify)	
007	Religion	1. Orthodox 2. Muslim 3. Catholic 4. Protestant 5. Other specify: _____	
008	. Income	1.<100 ETH birr/month 2.101-300 birr/month. 3. 301-500 birr/month 4. >=500 ETH birr/month	

Part II: Service satisfaction aspect questionnaire

Waiting time

009; Did you feel that the schedule (clinic)

Hours at the health facility was convenient for you? 1 Yes 2. No

010: How many minutes/hours/days waited to get the service from this hospital?

½-1 & ½ hours (30-90 minutes) _____ > 1 & ½ - 2 & ½ hours (91 – 150 minutes) _____

> 2 & ½ - 3 & ½ hours (151 – 210 minutes) _____ > 3 & ½ - 4 & ½ hours (211-270 minutes) _____

> 4 & ½ - 5 & ½ hours (271 – 330 minutes) _____ > 5 & ½ - 6 & ½ hours (331 – 390 minutes)

> 6 & ½ hours – less than 2 days.

Questions	Client Response rate by Number
-----------	-----------------------------------

	Very satisfied	Satisfie d	Neutr al	Unsatisfi ed	Very Unsati sfied
	5	4	3	2	1
010. How much are you satisfied with the time spent waiting to be seen by the health worker?					
011---Were you satisfied with the queue process to see a Doctor?					
012. How satisfied are you with the courtesy and respect of the Healthcare provider during Your visit?					
013.How satisfied are you with the measures taken to assure privacy during your Examinations? For example, a private					

<p>Room, Curtained or screened area, etc...</p> <p>014.How much are you satisfied with the information of the service of the hospital?(e.g., In locating the rooms for Registration, exam. rooms, lab and Drug dispensing).</p> <p>015. Were you satisfied with the measures taken to ensure confidentiality about your health problems ?</p> <p>016.How do you rate your overall level of satisfaction regarding the delivery of the health service you received?</p>					
<p>017: Do you know any other hospital that provides ART Services? 1- Yes 2- No 80.I do not know</p> <p>018. Would you recommend the services of this hospital to someone else? 1- Yes 2- No 80.I do not know</p>					

Consultation Service

Questions	Client Response rate by				
	Client number	Always	Most of the time	Somet imes	Not very often
019. How often did the Dr. / clinician treat you with dignity & respect?	5	4	3	2	1
020: How often do you feel comfortable asking your doctor/ clinician questions?					
021: How often does the doctor/clinician answer your questions?					
022: How well does the doctor/clinician explain your medications to you? E.g.: discusses possible side effects, correct dosage, purpose of medication, etc.					
023: How often are you given the opportunity to participate in decisions about your treatment?					
024. How do you evaluate your consultation with your Health provider at the clinic?					
025: How much time spent with the doctor/clinician? 2 - 5 minutes _____ 6 - 9 minutes _____ 10 - 15 minutes _____ >=16 minutes _____					

	Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied
	5	4	3	2	1
026: How satisfied are you with the time spent with the doctor/clinician?					

Relations between health care providers and those receiving ARV (Interview) or. Generally when you come to receive ARV from this hospital how is your relationship with the hospital staff, namely with the doctors, nurses, counselors and pharmacists.

Counseling/Instruction Service					
Questions	Client Response rate by number				
	Always	Most of the time	Sometimes	Not very often	Never
	5	4	3	2	1
027. How often does the counselor treat you with dignity & respect?					
028: How often does the counselor seem to understand how you feel?					
029: How often you feel comfortable sharing personal and confidential information with your counselor?					
030: How much would say that the counseling service you received from this Hospital has helped you to improve the problems, feelings, or situations that brought you here?					
031: Which problem or problems did you encounter in the counseling service?					

Delay _____ Shorter time (< 1hour) _____ Rudeness of staff _____ Longer time(>1hour) _____ Others(specify)_____					
	Very satisfied	Satisfied	Neutral	Unsat isfied	Very unsati sfied
	5	4	3	2	1
032: How satisfied are you with the service you received from the counseling service? 033..how satisfied Dr./clinician listen to your worries and concerns ? 034; How satisfied are you happy with the time that the PLHA volunteer gives you when you need to talk about ARV medications or about health problems? 035; The PLHA volunteer pays attention to your conditions?					

Traveling time

036: How many hours did you travel to reach this hospital? 1. <= 1 hour (0 – 60 minutes) _____ 2. >1 – 2 hours (61 – 120 minutes) _____ 3. >2 – 3 hours (121 – 180 minutes) _____ 4. Greater than 3 hours (>180 minutes) _____					
	Always	usually	sometimes	Not very often	Never
037. How satisfied are you with the traveling time you took to reach this hospital?	5	4	3	2	1

Laboratory service

38. Were any Laboratory procedures ordered to you? 1 – Yes 2 – No

039. If yes, did you get all the ordered procedures in the hospital?
 0 – Not ordered 1 – Yes all 2 – Some only 3 – None

040: How many hours/days took your laboratory investigation?
 1. <= 30minute (0 – 30 minutes) ----- 2. >30 – 1 hours (30 – 60 minutes) _____
 3. >1- 2hours----- 4. >= 2hours.

041. How satisfied are you with the above time you spent in laboratory investigation?	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very dissatisfied
	5	4	3	2	1
042. How much are you satisfied with the health education given concerning ART adherence?					

043: Which problem or problems did you encounter in the laboratory service?
 Delay _____ Expensive test _____ Rudeness of staff _____ Missing results _____
 Others _____

Pharmacy Service

044. Were drugs and supplies ordered to you? 1 – Yes 2 – No

045. If yes, were you able to get them in the hospital pharmacy? 1 – Yes all

2 – Some but not all

3 – None of them

046: How long did you wait to collect your medication?

1. ≤ 10 minutes _____ 2. 11 – 30 minutes _____ 3. $> \frac{1}{2}$ hour – 1 & $\frac{1}{2}$ hour _____

4. $> 1 \frac{1}{2}$ – 2 & $\frac{1}{2}$ hour _____ 5. $> 2 \frac{1}{2}$ - 3 & $\frac{1}{2}$ hour _____

047. How satisfied are you with the availability of drugs and supplies?	Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied
	5	4	3	2	1

Thank you