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Anti Retroviral Therapy in Public Health Institutions of Oromia Region: A Qualitative Study

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Abstract: In Ethiopia, the HIV epidemic has remained a major public health problem, mainly affecting people of prime productive and reproductive age. Retention in care and adherence to the treatment is very important for the success of the program while the treatment is being scaled up. No national or regional study gives information on opinion of the Antiretroviral Therapy (ART) service providers. Thus, this study was aimed to explore the perception and opinion of the service providers on status of ART adherences, lost to follow up and associated factors. A total of 14 In-depth Interviews was conducted between February to April, 2015. Interviewees were purposefully selected from the health institutions providing ART services in Oromia Region. The analyses followed the procedure for qualitative thematic analysis using OpenCode qualitative software. Three themes (current statuses of ART adherences and Lost to follow up, reasons for poor adherences to ART and lost from the treatment, and suggested measures) were emerged. Most interviewees perceived, the current statuses of ART adherences are improving. Work overloads, religious influences, social stigma, and perceived fear of drug side effects were the reasons for poor ART adherences and lost from the treatment. The suggested measures were involving the concerned bodies in prevention and treatment of HIV/AIDS and giving special attention to the young people in learning institutions. More efforts are needed to improve adherences to ART and reduces lost to follow up. Providing professional, family and social support for the client is crucial.

Keywords: Adherence to ART, Lost to Follow up, Qualitative, In-depth Interview, Oromia Region

1. Introduction

Sub-Saharan Africa is the epicenter of the human immunodeficiency virus/Acquired immunodeficiency syndrome (HIV/AIDS)epidemic, accounting for 24.7 million or 63 percent of all persons infected with HIV [1]. Initially, challenges for confronting the AIDS epidemic was primarily concentrated on access to antiretroviral (ARV) medicines [1, 2]. However, the increasing availability and affordability of the ARVs among other things has dramatically facilitated the scaling up of antiretroviral therapy programs worldwide [1]. It was in the late 1990s, a combination of antiretroviral therapy (ART) introduced and patient adherence emerged as the weakness heel in these potent regimens [3].

Adherence is the extent to which patients carry out the behaviors and treatments as recommended by their practitioners/doctors. Moreover, adherence to ART has a multidimensional construct: Pill/regimen taking itself

(dosage, schedule, dietary recommendations), the retention and engagement in care (clinic attendance) [4]. The public health approach to extend ART rapidly to the maximum number of individuals in need, especially in resource limited settings, is based on standardized, simplified treatment protocols, management approaches and decentralized service delivery [5, 6].

Retention in care and adherence to the treatment are very important for the success of the program while the treatment is being scaled up[7]. However, loss to follow-up from ART is a problem for the success of ART programs in resource limited countries [8]. In Ethiopia, for example, routine data supplied to the HIV/AIDS prevention and control office (HAPCO) indicated, many patients have dropped out of ART [9]. By the end of June 2008, only 75% of the patients were alive and on ART out of the patients who had been started on ART since 2013 [9]. Even though mortality also accounts for this huge proportion of disappearance from chronic care, loss to follow up while alive remains a major issue [9].

Lower rates of ART adherence can be independently associated with treatment failure [10]. Optimal adherence (>=95%) is also essential for programmatic or public health planning and evaluation, since it is one of the most important requirements for the success of ART programs [11]. Moreover, for the measurement of lost to follow up from ART, a number of programs have used different modalities and the majorities used patients who missed scheduled clinic visits or medication pickups for a specific period of time based on their objectives [12]. Others classify patients as lost to follow-up (LTFU) if they have not attended a scheduled clinic for two or more consecutive visits [8] or did not attend completely for at least three months ("drop out") that is taken as an standards [13].

In Ethiopia, the HIV epidemic has remained a major public health problem, mainly affecting people of prime productive and reproductive age[14]. Because of the wide availability and use of a free ART service that began to operate in 2005 with the support of the donor organizations, the HIV/AIDS related morbidity and mortality has decreased significantly in Ethiopia [14]. Based on different single facility based studies across the country, the level of ART adherence varies between 87% to 94% [6, 7, 15-17]. In the same vein, studies from poor resource settings indicated the proportion of lost to follow up from ART was in a range of 5-25% [18]. In Ethiopia, the proportion of lost to follow up from ART for ≥3 months at different health institutions shows 11% to 14%[19, 20].

But as to the best knowledge of the investigators there is no national or regional study that gives data on opinion of the ART service providers. Therefore, this study aimed at assessing the perception and opinion of the service providers on the prevalence of ART adherences, lost to follow up and associated factors.

2. Materials and Methods

2.1. Study Area and Period

The study was conducted in Oromia region in randomly selected ART service delivery institutions. The Oromia National, Regional State is the largest and most populous region in the Ethiopia [5, 21]. This region shares common boundary with all regions except Tigray. The two city administrations, Addis Ababa and Dire Dawa, are also surrounded by administrative zones of the region. Being the largest region that covers the central land mass of the country, Oromia includes high HIV prevalence corridors. As a result of these features of the region, the study conducted in this region was believed to show the national picture related to the studied issues. According to the national HIV/AIDS related estimate and projections for Ethiopia, the prevalence of HIV infection in 2014 was 1.2% (1.6% and 0.8% of women and men respectively) among the adult population of age 15- 60 years [5].

The HIV/AIDS situation in Oromia region is not different from that of the national data. The Oromia Regional state has 42 Hospitals and over 1,300 Health Centers [5]. From these health facilities, 318 (42 Hospitals and 276 Health Centers and other non-governmental health institutions), are providing ART service. The health facilities are grouped into seven clusters according to the Ethiopian Hospitals Alliance for Quality (Bishoftu, Bisdimo, Najo, Bedele, Yabelo, Fiche, and Shashemene) by the Oromia regional Health Bureau. Under these clusters, there are different number of Hospitals and Health Centers delivering ART services.

2.2. Study Design and Study Period

Facility based cross-sectional study design was conducted using qualitative data collection methods. Data were collected from In-depth interviews (IDIs) of service providers between February to April, 2015. The number of IDIs was determined by saturation of ideas - until a point where no more new ideas emerged.

2.3. Data Collection and Analysis

The participants were selected by criteria of been ever involved in the provision of ART in public health institutions. They were selected using purposive sampling method with the support of their respective leaders of the health institutions. Only one participant was selected from each public health institution. Open-ended unstructured and flexible interview guide was prepared based on the objective of the study. The interview guide for the study was prepared based on previous similar studies and the objective of the study. During data collection and initial analyses, this pre-understanding was put within brackets [22].

Trained male research assistants (an anthropologist) moderated all the interview activities. The interviews were tape-recorded and all observations made were recorded as field notes. The interviews were conducted in a quiet place to encourage free expression of ideas without any threats and each lasted for 20-40 minutes.

Each interview session was tape-recorded and transcribed verbatim in the regional language (*Afan Oromo*). Later, it was translated into English by the principal investigator together with the moderators. To assure the validity of the

translation, another person, proficient in both languages checked and commented on it so as to incorporate changes into the report. Many of the post-interview questions and interactions were not recorded to include in the analysis. Following the steps of qualitative thematic content analysis [23-25], the texts were imported into the Open Code 2007 program to facilitate the coding process [26]. After reading the transcripts, the researchers performed open coding of the texts, constantly comparing similarities and differences by going back to the original text. In the next step, selective coding was performed and relevant codes were further conceptualized leading to the development of categories. Several categories were taken together to form themes. During the coding process, relevant quotations from transcripts were put into memos and incorporated to illustrate the main ideas during the write-up. Finally, understanding of multiple forms of information collected and triangulation of different data sources was made to verify the findings.

2.4. Ethical Considerations

The research proposal was examined and screened for scientific and ethical integrity of the institution's review board (IRB), the highest body for approving research in the Oromia Regional Health Bureau and Adama Hospital Medical College. To this effect, a letter with a green light to carry out the study was issued and an official letter was written in the regional and local authorities by the Oromia Region Health Bureau. Formal permission and verbal consent were secured from administrative officials at different levels of governmental Authorities and the unit leaders. Furthermore, the ethical guidelines of health system research were strictly followed [27]. Informed verbal consent was obtained in advance from the respective interviewee to record their responses. Notes were taken to be able to capture the interaction between the moderator and the interviewee. They were also told to switch-off the audiotape, if they feel that there are issues which should not be recorded. The moderator ensured that all collected information is kept and used in such a manner that confidentiality, anonymity and privacy of all participants are maintained, bearing in mind the sensitivity of the topic.

2.5. Trustworthiness

Multidisciplinary research teams, verbatim transcriptions, and predefined analytical procedures were used to promote the study rigor. During the analysis the fitness and relevance of emerging categories to the research question were tested by constant comparison and checking between the text, codes and categories. Moreover the Lincoln and Guba's model [28] of trustworthiness has been applied. Credibility was assured by continuous interaction with discussants in the study area. Follow-up interviews with participants were conducted and member-checking was done to verify the findings. Triangulation of data collection methods was done as field notes were also used to collect data. Transferability was enhanced by purposive sampling of the discussants. Detailed and thick/dense description of results as well as literature control was done to support the findings. Conformability was ensured through the use of an independent coder who analyzed the data independently and a consensus discussion was held to agree on adopting themes and categories [22].

3. Results

A total of 14 IDIs (six men and eight females) with health professionals who were involved in the provision of ART and case managers were conducted. The median age of the discussants was 35.6 years (ranged from 23 to 48 years). Of the participants nine were ART focal person and five were ART case managers. Three main themes emerged from data analysis of IDIs: current statuses of adherences to ART and lost to follow up, factors contributing to it and suggested measures for increasing adherences and lost to follow up. Examples of the emergent themes, sub-categories and codes are summarized in Table 1.

Table 1. *Descriptions given the statuses HIV/AIDS and ART by themes, categories, Oromia Regional State, Ethiopia, 2015.*

Theme	Category	Code
ART adherence and LTFU	Improving	*Good status, low lost to follow up, provision of counseling and finding lost to follow up,*
	Responsibility	*Many activities, decide, test CD4 every 3 months, follow through telephone, TB screen*
Reasons for poor adherences and LTFU	Work overlook	*Other duties, loss insight on ART, poor office, support from ICAP,poor social support*
	Social support	*Deep-rooted fear of stigma and social exclusion*
	Religion	*Worshiping, religious obligation-ART dilemma,*
	Poverty & unemployment	*Luck of money, disappear without informing,*
	Side effect	*Leave medicine*
Suggested measures	Involvement	*NGOs, community, sustainable, media work*
	Attention	*Schools, colleges or universities, students and teenagers*

3.1. The Current Statuses of ART Adherence and Lost to Follow up

3.1.1. Situations Indicating an Improvement of ART Adherences and Lost to Follow Up

According to the ideas of the participants the implementation of ART in all selected Public Hospitals and Health Centers was found to be in good status. This can be indicated by the proportion of clients who properly adhere to ART and the number of lost to follow up observed. Moreover, in all selected health institutions the number of lost to follow up was very low. For instance, currently it was found to be less than 3-4 clients per month in the Nekemte Health Center, about 10 clients in Batu Health Center, 2-3 cases in Nedjo

Hospital, and around five people per month in Gimbi Adventist Hospital. An ART focal person in Nedjo Hospital holds that "*there is low lost to follow up in this Hospital. Previously it was high because at that time we didn't have ART case mangers and peer educators. By now the rate is low (2-3 cases).*"

3.1.2. Health Professional Bears Responsibility

There are numbers of health professionals assigned to implement ART in different health institutions in the country. On one hand, there were professionals who were responsible for giving medical service such as clinical nurses, and on the other hand, there were also supportive staff who were responsible for giving general service such as counseling and tracing those lost to follow up.

Generally, according to the informants, the main duties expected from professionals assigned to ART section are many. They mentioned as follows.

..... When the client comes they send them to data room, from that, there are peer educators who give them counseling and teach generally about HIV/AIDS and ART. Next to that there is another room- ART adherence and new patients' room; and then there are laboratory assessment - their CD4 and other tests and then they bring back the results. Based on that, they differentiate those who required to start medication and who don't, and they also identify those who require additional reference to doctors for further treatment. Then they also provide counseling for those who required to initiate ART. So there are many activities which related to new patients; those with chronic cases, those who already started ART, and those who lost to follow up.

Another interviewee explain in other words,

"We are responsible for giving general service. We also give them medical service. We accept clients who linked to us. We fill the intake form, make them to adhere, test their CD4, identify the stage, and give them counseling. Full follow up; we also decide when to start ART; may be six months if their CD4 is good. We also assess their CD4 every three months. We also follow them through telephone, and assess their status when they come to us. Our other duties also include nutrition assessment, TB screen, and CD4 test."

3.2. Reasons for Poor Adherences and LTFU

3.2.1. Work Overload

Although in most cases, the integration and the relationship between these different sections was found good, some misunderstanding and problems were observed in a few cases. An ART case manger seriously explains the serious work burden and poor cooperation between different sections. He stressed by saying:

... At the health center he is assigned to many different extra responsibilities. For instance, extracting/arranging clients' file and there are many extra works. His formal responsibility is to follow up lost to follow up clients, counseling and adherence follow up. He said, formal admission of clients and arranging file is not his formal duty, but the organization assigned to him as an extra duty which make him busy to effectively work on adherence and finding lost to follow up clients. Besieges, the workers in the archive section and other department are not cooperative; they are marginalizing this issue.

The delegation of professionals in the ART room is an extra duty to become a challenge to fully implement the program. In most cases of selected health centers and hospitals, most ART focal persons were assigned to other duties. Some of them are working night duty, others assigned to management and supportive work, and the rest of TB section. An informant explained this...

In addition to the provision of ART, they have also extra duties such as… for instance, She also serves as a store woman; at the same time she isan ART focal person; OPD, TB, and extension work follow up. All this is due to the issue that ART was not considered as the main focus of health issue. This has its own implication on enhancing the level of ART implementation. Due to this they don't have enough time to treat and give counseling…. And it also has implication for quality of ART service.

Workload and lack of adequate skilled manpower was also found another factor which influences ART workers accomplishment of their duty. In some health centers and hospitals there was a high concentration of ART clients and low number of ART workers.

An ART focal person explained this condition as:

"This ART service needs due attention. We are always overloaded. There are many patients. So, there is a shortage of skilled manpower. Since we are overloaded we can't give enough time to counsel them due to this, most of them may be dissatisfied and lost to follow up or change to other hospitals. We are also busy… we don't have enough time… due to this there is low adherence. So, to give good and quality service, this hospital has to improve and hire additional professionals. Daily we are admitting 80-100 clients, which is beyond the normal standard and beyond our capacity. Thus, this has its own impact on ART adherence. In each follow up for all clients we have to test and check whether or not they are taking their ART properly. But due to lack of time we are not doing this well…"

Similar idea was also forwarded from another ART worker in another hospital,

... As compared to other health centers in the region, there is a shortage of human resource in their health institutions. They have 1700 ART link. But she is the only person who treats them as a nurse. In another place two nurse are there where there are only 500 clients. She is overloaded; in this case she couldn't give quality and enough treatment for them. Per day she is treating more than 50 clients, which is overloaded. Due to this it is very difficult to serve in attention. It also implied for increasing lost to follow up.

Lack of office facilities was also found another obstacle to full implementation of ART duties in some health centers of the region. Some of the informants replied that there is a shortage of facilities such as computers, vehicles, and others. Another respondent revealed that "*there were no adequate budget and full facilities to treat patients. Previously, there was support from ICAP and other NGOs; but now such support is lacking*."

Lack of computerized system of documentation was also found as a serious problem in one of the six selected health institutions. It was believed that this computerized system facilitates service giving, save time, enhances access to updated clients' history. With one of selected cases, many clients were dissatisfied because their file may be lost or takes a long time (usually half a day) to get it. A female interviewee from Hospital mentioned:

"Sometimes their file is lost in data room; or it takes long time to get it. This may also make them to angry at us which also leads to increasing lost to follow up. The file is lost due to un computerized, lack of proper management, and due to a large number of clients."

3.2.2. Social Support

One of the main critical issues related with social factor is the deep-rooted fear of stigma and social exclusion. It was reported that HIV/AIDS patients in general and specifically clients who are on ART are not free to freely disclose their HIV/AIDS status. In addition to this many clients also don't want others to see them in Hospital/Health Center while they are in ART section. In this regard, this is the main reason for lost to follow up. In their area, the social relation is very intimate based on neighborhood and religion. They are also intimate with social workers working in hospital. So, they don't want to talk their problem and about the ART to people they know very well. In this case they are forced to take it from distant areas.

These responses indicate that the level of lost to follow up shows variation across places: specifically different across rural and urban areas; and differences across social categories. Respondents further clarified that level of lost to follow up is low where social solidarity is strong. It is clear that in rural areas a variety of strong social relations exist. People's participation in different social gathering such as church, coffee ceremony, neighborhood, and other friendship is strong. In this circumstance, people define themselves and take action based on the definition and perception of others about them. For instance, if they have high social status, being HIV/AIDS positive and ART client is considered as a shameful and it lowers their social recognition and acceptance in the society. An informant clarifies this by specific cases,

... Especially government employees are fearful to disclose their case, rich persons, and high status people too. The stigma is very strong. Due to this many people don't want to be tested and adhere. A woman says that "it is better to leave the medicine than to be socially excluded"

Unexpectedly, this problem is also very serious in many urban centers of the region. Generally, the ideas of the interviewee indicate that compared to cities and social relations in western countries, in Ethiopia and generally in urban centers the level of Urbanism is low and social relation in these areas found relatively stronger. One best indicator of this is that in many urban centers of Ethiopia there are a lot of alternative social relations such as self help groups such as Idder (village based, religious, ethnic, gender, or work place based), Ekubs, religion, neighborhood, etc. These modes of social relations are still very strong and functional in many urban centers of the country in which everybody required to participate.

Thus, the problem of stigma and social exclusion become serious problem like that of rural areas. One respondent presented its extreme case, "*People don't buy something from HIV/AIDS positive people; they don't want to talk with them; don't drink coffee with them. So, to escape from this most clients doesn't want to talk with ART workers and visit their home*." This situation is apparent in all rural and urban centers of Oromia region in which this study was undertaken.

On one hand patients prefer lost to follow up than disregarded the exclusion. This issue is one of the basic which everybody couldn't simply choose. Because both options determine one's life. On one hand, one cannot survive in isolation from others. It is through active participation and membership in different social institutions that people secure their lives. On the other hand, strict ART adherence and follow up also determines one's life since it prolongs life. In this dilemma most respondents explained that many clients choose the value of social relations than taking ART and being socially excluded.

The above quote represents this idea, "*it is better to leave the medicine than to be socially excluded*". However, there are some people, especially economically better off and more knowledgeable people who manage to adhere and taking ART in distant health institutions where they are socially strange. Those who unable and don't know where to go become forced to carry the burden of social exclusion and living in a painful setting.

In these regards lack of social support also become insignificantly affects ART adherence and follow up**.** However, there are disabled and aged people who are ART adherents. There were also few cases who lost to follow up due to lack of friends or relatives who support them. Most interviewees revealed that it was not a lack of social support that make them lost to follow up; rather resistance to disclose to others due to fear of stigma and other religious and economic problems which was considered as real causes.

3.2.3. Religion

"*Waqayyo wanta dadhabu hin-qabu*": nothing beyond the control of God**.** According to them some religious issues among Muslims and Christians become an obstacle to ART adherence and follow up. An ART case manager replied that she specifically knows two clients who lost to follow up due to this reason. Both of them resisted saying that "*when you believe you will be cured*". If you are a believer, and believe in the words of the Lord that you will be saved when you pray fasting. In this case, how do you confront with them to take ART?". Also, some interviewee mentioning that the discomforts related to Muslim fasting were another issue which becomes an obstacle to ART follow up. One mentioned.... ART workers reported to her that there are Muslim clients who take two ART pills per day. In this case they are not allowed to take it during the Ramadan fasting. It is obvious that religion is one of the main social identities. Specifically, fasting among Christians and Muslims become

an indication of the commitment to their religious identity and it is also one of the main religious obligations.

Among Muslims nothing is allowed (eating/drinking) including water during fasting. In this circumstance, it was reported that some of them stopped to take it, saying that "*they have to choose their religion than taking medicine*". However, ART workers revealed that nowadays they have started giving ART pills which should be taken once a day, although not solved the case at all because they reported that those who already started with two or more ART pills per day are still in the religious obligation-*ART dilemma*.

As praying was common among Protestants, "*Tsebel*" was also more popular among Orthodox Christians. The informants maintained that some Orthodox Christians use *Tsebel* as a means of cure and they believe that they become free from any disease including HIV/AIDS. In addition to this, in search and use of this, they go distant area (around *Modjo*); stay there for more than three months, which make them less adhere and high probability for lost to follow up.

Amazingly, there is an existence of social stigma and discrimination in different religious institutions mentioning a general belief that Ethiopians are pious. Meaning that peoples' consideration of their religious identity and commitment to their religious duty is strong. In this regard people develop a hierarchy in terms of their religiosity. Thus, if you are not pious, your status in that religious group becomes low. In this case if you are HIV/AIDS positive and ART adherent, it means that you do not believe in the curing capacity of God and you are not pious. It was this common understanding that brought social exclusion in religious institutions and which force people not to disclose and adhere to ART.

3.2.4. Poverty and Unemployment

Most of the interviewee mentioned, poverty was generally related to low level of adherence and lost to follow up among most of the respondents. Although the meaning of poverty is all inclusive, for the purpose of this study it was explained in terms of lack of money, food, job, and other basic needs. Based on the information obtained from the respondents, many clients are coming from distant areas of their respective health institutions as ART service was available at limited centers. At that time lack of money for transportation was one of the reasons behind some drop outs. Currently, the service was decentralized, although not accessible in all rural health centers. Everybody can get access roughly in 10 km radius. Thus, accessibility issue was one of the reasons for the low rate of ART follow up. Some clients want to go to a distant place in fear of stigma which later resulted on drop out due to lack of money.

Another issue to which poverty related was lack of food. It is generalized that Ethiopia is a poor country which evidenced by the fact that most of the citizens are food insecure. Thus, many respondents relate food security to level of ART adherence. Clients traditionally perceive that it is not good to take any medicine to empty stomach. Based on this general believe many clients stop taking ART when there is no enough food to eat well. Because, if they take it on empty stomach it affects their health. One of the respondents of this study best put this idea,

Economic reason is the main point that they hear from most of the clients. They are saying that taking this medicine to empty stomach is dangerous. "garaa qullaatti qoricha hin-fudhatan". Most of them believe in this tradition. They teach them regarding this challenge, saying that the medicine should be taken before a meal and it has no side effect in this regard. They also said, it is save when they take it before eating. Indeed, no one survives only with this medicine (namni qoricha duwwaan hin-jiraatu). Additional eating; nutritious food is necessary. They are also concerned about their economic issues. Because it disturbs their emotion since health also include emotional rest. So in this regard, they advise them to organize in IGA to improve their economic condition.

Unemployment and lack of permanent residence was another feature of poverty to which ART lost to follow up was related. Lack of food and money is strongly related to unemployment. Most respondents maintained that some clients lost their permanent address which make following and treating them difficult. This issue was mainly related to youngsters. There were clients who flight to other cities, neighboring regions, and even to other countries-Arab world. Most of them didn't inform to health centers when they had a flight. So, no one knows whether they continue taking ART or not in their destination place. In addition, many clients also live in rented houses which are not permanent address to get them. They shift their residential addresses from place to place in unpredictable time periods. This condition makes the ART case managers difficult to get them during the required time to follow their ART adherence and follow up. The nature of the job they have also determined the level of ART follow up. Some clients are mobile and some are prostitutes shifting the Hotels they work in time to time; even moving across towns in the country. Others are also drivers moving across regions and lack permanent address. Thus, it was extremely difficult to follow their ART adherence.

3.2.5. Perceived Side Effects

Some ART clients also perceive that the medicine has a lot of negative side effects. An ART expert explains this,

...There are also complaints about the side effects of the medicine. It makes them tired, especially after 10 hours. There are clients with severe gastritis. In this case some of them unable to take it. In this case they don't consult us; simply leave the medicine.

3.3. Suggested Measures

3.3.1. Involvement

Most of the interviewee forwarded their concern as this problem is serious. They said, the previous trends have to be renewed. The involvement of NGOs, community mobilization and the attention of the government should be sustainable. "People now make it normal; no fear. People become careless. Thus, to change this, the role of media has now been very weak; they have to do well. The government also shifts its attention to other sectors." Therefore, the attention of government and mass media is essential.

3.3.2. Special Attention Has to be Made

"Attention should be given in schools and colleges or universities. Many of them expected to know, but the reality is not; most of them are infected and come to health facilities. Even they don't want to come and adhere. They are easily exposed." "Special consideration has to be given to students and teenagers-the stigma is serious about them-there is a double burden on them: they fear their society in general and their parents. They don't want others to know and see them when they come to the office. In this case they are thinking to serve them during night, but impossible for them. Due to this they come to their office covering their face. When they come usually they are also not open due to fear…. Low communication leads to low knowledge which further leads to low level of adherence and high rate of lost to follow up."

4. Discussion

The first theme explains the improving statuses of ART adherences from time to time in the region because of the increasing responsibilities of the concerned bodies. The sub-categories for the second theme or the reasons for the lost-to-follow up from ART includes work overload, poor social support, influence of religion, rampant poverty/unemployment, and occurrences of drug side effects. Thirdly, the theme on the measures to be taken to increase ART adherences more and reduces lost to follow up from ART was focusing on involving the concerned bodies and giving special attention to the most vulnerable groups in different settings.

The majorities of the interviewee have indicated for the improvement of ART adherences and decreasing lost to follow up from ART from time to time in the region. This doesn't go with the findings of different single facility based studies across the country indicated the level of ART adherence were below the optimum level (>=95%) that varies between 87% to 94% [6, 7, 15-17]. But it is in agreement with studies from Ethiopia showed the proportion of lost to follow up from ART ranged from 11% to 14% [19, 20], almost bellow the findings from some poor resource settings indicated the proportion of lost to follow up from ART of 25% [18]. This is because the knowledge, skills and responsibilities of health professional involved in ART service provision is currently increasing due to continuous in-service and preserves trainings.

The majority of the interviewee assured workload, lack of adequate skilled manpower and inadequate office facilities as a major reasons for poor adherences to ART and lost to follow up, corroborating the staff's narratives gave a picture of devoted professionals who work in an untenable situation, some days handling more than 50 patients that may lead to the provision of poor quality services [29] and staff on fatigue over non adherent, wasted, or quarrelling patients, feelings of delivering insufficient adherence counseling, and no time for breaks or reflection [29].

In the study area, few interviewees reported the deep-rooted fear of stigma and social exclusion are still a problem for adhering into ART. This is consistent with the findings of focus group discussion and in-depth interview in Ethiopia showed, the major reasons that affect ART adherence were hopelessness, fear of stigma and discrimination, fear that others might see them when they take the ART drug [30].

The existence of religious obligation on *ART* dilemma mentioned by some of the interviewees. Among Muslims nothing is allowed (eating/drinking) including medications and water during fasting. In this circumstance, it was reported that some of them stopped to take it, saying that "*they have to choose their religion than taking medicine*". Moreover, as praying was common among Protestants, "*Tsebel*" was also more popular among Orthodox Christians, in which *Tsebel* is used as a means to cure and to be become free from any disease including HIV/AIDS. Some PLHIV do not have a good understanding of HIV, and the common beliefs about the causes of HIV and the basic etiology of HIV can reduce motivation for treatment [31]. In addition, misconceptions and rumors related to ARVs can affect adherence [31]. Also, in Ethiopia, religious PLWHA often takes holy water as a treatment for HIV instead of ARVs [32].

Unemployment and lack of permanent residence were the features of poverty to which poor adherence to ART and lost to follow up was related. This idea is supported by previous studies in Ethiopia determined most ART users are poor and their access to resources, including food, is further limited by their HIV status [32]. In the same study, many discontinue treatment because they do not have adequate food with which to take medication [32].

Some interviewee also mentioned about the perceived side effects of the ART by the clients as a reason for poor adherences and lost from the treatment. Obviously, antiretroviral medications often have many side effects, some of which are temporary: diarrhea, fatigue, nausea and vomiting; while others may be permanent or long lasting: peripheral neuropathy, physical changes in body appearance, lipo-atrophy/ lipo-dystrophy, metabolic changes [33]. Studies have also shown that when patients experience side-effects, they tend to stop treatment or take it irregularly [33].

The suggested measures for further increasing the statuses of adherences to ART and reducing those lost from the treatment are targeted to the involvement of NGOs, communities, and government bodies in the prevention, treatment as well as follow up of cases. Moreover, they stressed on giving more attention to young peoples in school and Colleges or Universities. According to their suggestions the measures require a variety of approaches targeted different stakeholders, including government and non-governmental agencies, law enforcement agencies, the health and education sectors, the line ministries such as Ministry of Education, and other faith based organizations (FBO). Their suggestions are in line with the recommendations from other similar studies from around the world, [18-20, 33, 34]

As to the strengths of this study, we have used a multi-disciplinary research team. Moreover, the methodological efforts to achieve a representative sample of interviewee from the health care providers and the rigor of the coding and analysis phases are meticulously applied. We also think that the interviews were open and free. However, concerning the limitation, as any other qualitative researches the study

results cannot be generalized to all other areas of the country. Despite this, we believe that this study has contributed a deeper understanding and knowledge for people in this field and similar area.

5. Conclusion

Three themes: statuses of ART adherences and LTFU, reasons for sub-optimal ART adherences and LTFU, and suggested measures were emerged from IDIs of health professionals involved in the treatment of HIV/AIDS patients and case managers.

The study found that the majority of the interviewee stated as the statuses of adherences to ART in improving because of increased responsibilities given to the care providers. This is clearly due to the emphases given to the program by the concerned bodies. The study also showed, presence of work overload, lack of social support, religious influence, poverty/unemployment and the possible side effects of the ARV as a reason for the poor adherences to ART and lost from the treatment. The suggested measures were the need for the involvement various stakeholders in the prevention, treatment as well as follow up of cases. Giving special attention to young people in learning institution was other suggestions forwarded by the interviewee.

It is recommended that more efforts are needed to improve adherences to ART and reduces those lost from the treatment by dispelling religious beliefs that condone poor adherences and lost from the treatment For mitigating poor ART adherences and lost from ART a conducive social relationships and creating a healthy family environment is needed by all stakeholders. Providing professional help and support at all levels as well as for the families are also crucial. There is a need for further study using other methods for further exploring the opinion of others like the community, clients and other concerned bodies.

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