

AN INVESTIGATION OF WHY CLIENTS AT CHIFUNDO CLINIC DO NOT ADHERE TO ART-TREATMENT: CASE STUDY OF CHIFUNDO CLINIC

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ABSTRACT

Antiretroviral therapy (ART) is the combination of several antiretroviral medicines used to slow the rate at which HIV makes copies of itself (multiplies) in the body. A combination of three or more antiretroviral medicines is more effective than using just one medicine (monotherapy) to treat HIV. The use of three or more antiretroviral medicines-sometimes referred to as an anti-HIV "cocktail"-is currently the standard treatment for HIV infection. So far, this treatment offers the best chance of preventing HIV from multiplying, which allows your immune system to stay healthy. The goal of antiretroviral therapy is to reduce the amount of virus in your body (viral load) to a level that can no longer be detected with current blood tests.

For over decades now, antiretroviral therapy (ART) for people living with HIV (PLHIV) has been available in Zambia and to the people of Chifundo Clinic in particular. Therefore, a key factor in the effectiveness of ART is good adherence to the prescribed treatment for both individual well-being and public health. Poor adherence to ART treatment can contribute to the emergence of drug

resistant strains of the virus and transmission during risky behaviors. Increased access to ART in low to middle-income country settings like Zambia has contributed to an interest in treatment adherence in resource poor contexts.

Strict adherence to antiretroviral therapy (ART) is key to sustained HIV suppression, reduced risk of drug resistance, improved overall health, quality of life, and survival, as well as decreased risk of HIV transmission. Conversely, poor adherence is the major cause of therapeutic failure.

This study therefore aims at investigating and identifying the possible reasons that are related to non-adherence to ART among people living with HIV (PLHIV) at Chifundo Clinic which is the case study area of this work.

KEY WORDS: *Antiretroviral therapy (ART), HIV/AIDS, Adherence, Non-adherence.*

1. CHAPTER ONE

INTRODUCTION

BACKGROUND

According to the world health organization antiretroviral therapy (ART) is a treatment of people that are infected with human immunodeficiency virus (HIV) using anti-HIV drugs. The standard treatment consists of a combination of at least three drugs (often called “highly active antiretroviral therapy” or HAART) that suppress HIV replication. Three drugs are used in order to reduce the likelihood of the virus developing resistance. ART has the potential both to reduce mortality and morbidity rates among HIV-infected people, and to improve their quality of life.

ART are therefore simply the medications that treat HIV. The drugs do not kill or cure the virus. However, when taken in combination they can prevent the growth of the virus. When the virus is slowed down, so is HIV disease. Antiretroviral drugs are referred to as ARV. Combination ARV therapy is referred to as highly active ART (HAART).

There are medical practitioners that believe that HIV testing is an important intervention in the HIV/AIDS pandemic. Proponents of HIV testing presume that on average individuals who learn whether or not they are infected will respond to this new information by reducing risky behavior.

However, HIV testing rates are low in much of the world and a vast majority of HIV positive individuals are not aware that they are infected. For example, among the 67 percent of the world population infected with HIV/AIDS that reside in Sub-Saharan Africa only 10 percent know their HIV status (WHO 2006). One of the main mechanisms by which policymakers hope to increase demand for HIV testing is increased availability of subsidized antiretroviral therapy (Global HIV Prevention Working Group 2004). The availability of antiretroviral therapy (ART) gives individuals a direct incentive to take a HIV test. If the clients take a HIV test and are found to be HIV positive, then

they may begin therapy, with a view to reducing morbidity and prolonging life.

However, the incentive of ART may be heterogeneous and many individuals may not choose to test in response to the introduction of ART treatment. Moreover, those who test because of ART may not demonstrate substantial behavior change subsequent to testing.

Zambia has one of the highest rates of HIV prevalence in the world. According to the anonymous HIV testing component of the 2001 Zambia Demographic and Health Survey (ZDHS), the HIV prevalence rate among adults age 15-49 is 14.5 percent. High HIV prevalence in Zambia is not a recent development (Bwalya E, 2006).

Non-adherence to medications is widespread among patients with chronic diseases. The shift to combination therapies for treating human immunodeficiency virus (HIV)-infected individuals has increased adherence challenges for both patients and health-care providers. Understanding the factors that affect non-adherence could provide valuable information about patients most at risk. Studies suggest that factors associated with adherence can be grouped under four main categories. One relates to patient factors, for example demographic characteristics. Another relates to psychological parameter knowledge, personal skills. A third category relates to treatment regimen-related factors such as years on treatment, pill burden, side effects; provider-related factors including the patient-provider relationship. The fourth category relates to environmental and social factors such as supervision of treatment, HIV-related stigma and social support. While some factors determining non-adherence to ART may be similar across countries, others may be highly contextual, and culture or country specific.

STATEMENT OF THE PROBLEM

There is a perceived difference in occurrences among people who are qualified to be on ART. Many people seem to refrain from continuing with ART program despite them having started. Others

do not even attempt to start taking ART. Therefore, this initiate a problem to combat HIV/AIDS as well help people to adhere to ART. Certainly this problem requires further analysis and exploration through social research. However, the overall research problem to be addressed in this study is that, regardless of the sufficient supply of ART treatment in Zambia and precisely at Chifundo Clinic, there is little knowledge as to why clients tend not to adherence to the treatment.

PURPOSE OF STUDY

The purpose of this study was to try and get the full reasons why the clients of Chifundo Clinic do not adhere to the ART treatment for the treatment is administered in the best interest of the clients and ultimately to sustain their lives. The study will build the body of knowledge in ART adherence. This research has also provided a platform for future researchers in the academic cycles to have a foundation for their literature review.

RESEARCH OBJECTIVES

The objectives of this research report were broken down into the general and specific objectives which are as follows:

GENERAL OBJECTIVE

The general objective of this research report was to find out the reasons why the clients of Chifundo Clinic do not adhere to ART treatment regardless of the treatment being readily available at the health center.

SPECIFIC OBJECTIVES

To find out the reasons why some clients do not adhere to ART treatment

To investigate how clients view the quality of services offered at Chifundo Clinic.

To investigate the number of clients who do not adhere to ART treatment.

To find out what measures are being taken (if any) by the management at the clinic to reduce the

number of clients who are not adhering to ART treatment.

To investigate the consequences of no adherence to ART treatment.

RESEARCH QUESTIONS

How many clients are on ART treatment at Chifundo Clinic?

As clients, how do you find services offered here at Chifundo Clinic?

Why do Clients not adhere to the ART treatment given to you by medical practitioners?

As management of Chifundo Clinic, what measure are you taking in order to make clients adhere to ART treatment?

What will happen if client does not adhere to ART treatment?

IDENTIFICATION OF VARIABLES

ART TREATMENT = f (Clients adherence)

INTERPRETATION: The ART treatment happens to be the dependent variable while the adherence by clients to the treatment is the independent variable. Therefore, any changes that occur in the clients' attitude/perception will lead to a significant change in the accessing of ART treatment.

HYPOTHESIS

The research study will be based on the following assumptions, which are the Null and the Alternate hypothesis;

Null hypothesis (H₀): It is true that if the clients of Chifundo Clinic change their attitude positively, the ART treatment will be adhered to.

Alternate hypothesis (H₁): It is not true that if clients of Chifundo Clinic change their attitude positively, the ART treatment will be adhered to.

SIGNIFICANCE OF THE STUDY

Principally, the significance of the study is that it is likely to change the attitude of many clients towards adhering to the ART treatment.

This study may also influence the way medical specialists administer the ART treatment to the clients at Chifundo Clinic and furthermore, it may add to the existing body of knowledge after being published and all in all be significant to the partial fulfillment of my academic program.

SCOPE AND LIMITATION

SCOPE

The researcher undertook data collection of this research report within a period of two weeks where the required primary data was gathered from Chifundo Clinic management which is the case study area. That is the time specific time period was from the third week of August and the last week of August. The researcher further targeted the clients of Chifundo Clinic, those specifically coming for ART treatment and the members of staff that are found at Chifundo Clinic these been the Nurses, Doctors and other medical practitioners. The clients that the researcher interviewed were identified by the use of simple random sampling method, thus, no specific choosing criteria was used in regard to who should provide the information required, as long as it is useful and such a one is falls in the target group.

LIMITATION

The main limitation that the researcher faced during this study is that, the study was not able to capture many respondents mainly due to limited time. The inability to access latest secondary information from reliable sources was also a major limitation which was in the external locus of control of the researcher and lastly but not the least of the limitation was how some respondents were somehow skeptical about giving full information and it was after fully explaining the essence of the study that they were able to open and respond freely.

2. CHAPTER TWO

LITERATURE REVIEW

The literature review was considered in this study whose role among others is to broaden the knowledge base in this research area and improve the methodology. This second chapter therefore consists of the theoretical review and the conceptual/empirical review that create the basis of this study and many other components associated with ART treatment and the clients' adherence to it.

THEORETICAL REVIEW

Adherence to medication has been described as the proportion of prescribed medications that is actually taken. It is measured on a scale from 0% to 100%.³⁴⁻³⁶ whereas compliance implies submissiveness, and suggests a more passive role for patients in their health care, adherence is associated with voluntary and collaborative behavior and conveys a sense of involvement. Adherence is the preferred term because it recognizes patient choice in therapy.

The theory of planned behavior (TPB) was also looked at in this study. This is a theory that links beliefs and behavior. The concept was proposed by Icek Ajzen in the year 2002 to improve on the predictive power of the theory of reasoned action by including perceived behavioral control. The theory states that attitude toward behavior, subjective norms, and perceived behavioral control, together shape an individual's behavioral intentions and behaviors. Knowledge/behavioral control, Self-efficacy/perceived behavioral control, subjective norms and intentions will be measured to see effects on adherence (behavior) (Ajzen, 2002).

This theory can help explain the logic behind individual non adherence behavior to ART. Factors such as society and the individual' s evaluation of the services rendered by the ART clinic can be explained by the TPD theory as hindering people from adhering to ART.

Although very little published information is available on medication adherence of HIV-infected

patients, new data from a number of studies were presented at numerous conferences, including the 12th World AIDS Conference in Geneva and the 38th Annual Inter-Science Conference on Antimicrobial Agents and Chemotherapy (ICAAC) in San Diego. Because the study of adherence is in its infancy, study designs and end points vary widely, making study comparisons difficult. Self-reported adherence, as defined in research studies, has been reported to range from 0% to 100%.

Although the results of some of these studies appear to conflict, important information is emerging about the extent of and factors associated with adherence.

The earliest reports of non-adherence suggested that slightly >10% of patients missed ≥ 1 dose of medication each day. Rates of non-adherence may be as high as 50% when averaged over time and with an arbitrary cutoff point of <80% of medication taken. This figure is supported by observations from 2 larger studies: an international multicenter study of 235 HIV-infected patients and a United States study of 244 HIV-infected Medicaid-insured patients. The reported rates of patients who take <80% of doses in these studies were 46% and 40%, respectively. It is interesting to note that these results are consistent with estimates of adherence in other chronic diseases and support the view that non-adherence is a common behavior that should be expected, even with a serious disease such as HIV infection.

In order to implement measures to improve adherence, it is first essential to identify the principal factors that contribute to the inability of patients to take their medication.

In both clinical trials and clinical practice, non-adherence to medications is widespread among patients with chronic diseases. The shift to combination therapies for treating human immunodeficiency virus (HIV)-infected individuals has increased adherence challenges for both patients and health-care providers. Estimates of average rates of non-adherence to antiretroviral therapy range from 50% to 70%. Adherence rates of <80% are associated with detectable viremia in a majority of patients.

In Uganda, Byakika et al did the first study on ART adherence levels in the 2002. They found non-adherence levels to be 28.8%, 30.5%, 31.8%, 32.1% and 37.8% (n=302) one day, two, three, four and seven days before the interviews, respectively, at the 5% benchmark. At the 20% benchmark, it was 28.8%, 29.8%, 30.2%, 28.3% and 25.7% (n=304), respectively.⁴³ The prevalence of non-adherence in this population per day was 28.8%. The study was conducted in three centers in Kampala (JCRC, Nsambya Hospital, and Mildmay Centre) and included only adults, most of 20 whom were paying for their treatment.

This study found that the biggest barrier to adherence was the cost of the drugs. At that time, ARVs were still very expensive and the study population was composed primarily of paying clients.

In an instance where there is need to compare ART adherence and non-adherence of people that access the treatment from private facilities and those that access it from public facilities, Nakiyemba from Southern Uganda carried out a qualitative study in the year 2005 and it was discovered that adherence levels were not described; however, in comparison to the private health facility, the public facility had many factors which were barriers to adherence such as crowding, long waiting hours, 23 some demoralized staff, and no adherence counselors.⁴⁹ From this study, private facilities are more likely to have better adherence than the public ones.

CONCEPTUAL / EMPIRICAL REVIEW

Although there is no universally accepted definition, medication adherence may be defined as the extent to which a patient takes a medication in the way intended by a health care provider. The terms adherence and non-adherence are meant to be nonjudgmental, statements of fact rather than expressions of blame toward the patient or provider. Non-adherence to medication, in general, is very common.

Non-adherence to ART treatment, likewise, is common in all groups of treated individuals. The

average rate of adherence varies by the method used to assess it and the group studied.

Studies of different groups of HIV-positive individuals in the United States generally show similar, suboptimal rates of adherence. Adherence measurements can be grouped into measures based on a patient's self-report of pill-taking behavior and measures that are objective surrogates of pill-taking behavior, such as pill count or MEMS caps. While it is difficult to compare studies using different measures of adherence, mean adherence was suboptimal in the following disparate groups of HIV-positive individuals: in a large multicenter clinical trial (85% adherence by self-report), among patients from a veterans and university hospital (75% by MEMS), among the marginally housed (89% by self-report, 73% by pill count, 67% by MEMS), among those with serious mental illness (66% by MEMS), among predominately minority women (64% by MEMS), and among 2 different groups of inner-city residents with a history of injection drug use (80% by pill count, 53.5% by MEMS in one group, and 78% by self-report, 53% by MEMS in the other group).

Studies from Canada and developed countries in Latin America and Europe demonstrate similar rates of suboptimal adherence. In general, 10% of patients' report missing at least 1 antiretroviral dose on any given day and 33% report missing at least 1 dose within the past month.

Rates of adherence also are known to decline over time. It can be concluded that most patients taking ART, regardless of their background or life situation, will encounter difficulties with adherence.

TABLE II. While the ultimate goal of ART is to reduce HIV-related morbidity and mortality, the initial goal is full and durable viral suppression. Full viral suppression allows for maximal reconstitution or maintenance of immune function and minimizes the emergence of drug-resistant virus selected by ongoing replication in the presence of antiretroviral drugs.

PROBLEM OF NON-ADHERENCE TO ART

Antiretroviral drug resistance is a major challenge to treatment programs for both developed and developing countries. Currently, approximately 10% of new HIV – 1 infection in the United States of America and Europe involve viral strains exhibiting resistance to at least one drug. According to the World Health Organization, only 50% of patients who suffer chronic diseases like HIV/AIDS, diabetes and hypertension adhere to treatment recommendations. In developing countries, when taken together with poor access to medicines, poor adherence is threatening to render futile any effort to tackle chronic conditions such as HIV/AIDS. Of those patients suffering from HIV/AIDS, approximately one-third take their medication as prescribed. Studies of HIV/AIDS have reported low adherence rates, similar to those seen for other chronic diseases.

CLINICAL IMPLICATION OF ADHERENCE TO ART

The primary goal of treatment with ART is to prevent HIV-related morbidity and mortality. Many studies have shown a strong correlation between adherence and clinical outcomes and/or laboratory markers (notably CD4 count). Non-adherence has been found to diminish the immunological benefit of ART and increase AIDS-related morbidity, mortality, and hospitalizations.

Adherence clearly has been associated with CD4 count in a number of settings. In a prospective cohort study of 1,095 patients enrolled in 2 randomized multicenter trials of initial and salvage ART, participants who reported adherence levels of 100%, 80-99%, and 0-79% had CD4 increases of 179, 159, and 53 cells/ μ L, respectively, from baseline to month 12 ($p < 0.001$).

In the VA/university cohort study cited above, those with $\geq 95\%$ adherence had a mean increase in CD4 count of 83 cells/ μ L while those with adherence of $< 95\%$ had a mean increase of 6 cells/ μ L. Several studies have demonstrated that medication adherence is second only to CD4 count in accurately predicting progression to AIDS and

death. For example, in a study of 76 HIV-infected patients that measured adherence by unannounced pill count every 3-6 weeks, no patient with >90% adherence progressed to AIDS over the 13-month follow-up period, compared with 8% of those with 51-90% adherence and 41% with ≤50% adherence. In bivariate analysis, each 10% difference in mean adherence was associated with a 28% reduction in risk of progression to AIDS (relative risk [RR] = 0.72; 95% confidence interval [CI]: 0.59-0.87).

The relationship between adherence and mortality was further defined in a population-based analysis of 1,282 ART-naive HIV-positive individuals in British Columbia who started triple-combination therapy between August 1996 and December 1999. Adherence was estimated by dividing the number of months of medications dispensed by the number of months of follow-up. In a multivariate model, 2 factors--each 100-cell decrement in baseline CD4 count and <75% adherence to ART--were each associated with increased mortality with a risk ratio of 1.31 (95% CI: 1.16-1.49; $p < 0.001$) and 2.90 (95% CI: 1.93-4.36; $p < 0.001$), respectively.

In a cohort study of 1,219 HIV-infected patients who began ART during the period 1990 to 1999 at a single hospital in Barcelona, Spain, adherence was assessed by self-report and pharmacy refill data. Patients were considered non adherent if they took <90% of prescribed ART. The initial regimen consisted of monotherapy in 23.7% of cases, 2 drugs in 30.5%, and 3 drugs in 45.8%. In multivariate analysis, the only modifiable variables that significantly affected mortality were treatment type (monotherapy: relative hazard [RH] = 9.76; 95% CI: 4.56-20.90; 2-drug therapy: RH = 9.12; 95% CI: 4.23-19.64) and adherence (non-adherence: RH = 3.87; 95% CI: 1.77-8.46).

Non-adherence to ART has been clearly implicated in the development of antiretroviral-resistant virus. Initial views, based upon experience with tuberculosis, suggested that patients with low levels of adherence might be at greatest risk for developing drug-resistant infection. Recent data suggests that the relationship between adherence and resistance is more complicated and likely varies by antiretroviral class.

Several studies have demonstrated that ART medication adherence is second only to CD4 count in accurately predicting progression to AIDS and death.

Evidence can be derived from a study that was carried out in South America and the study had the following findings; a study consisted of 76 HIV-infected patients that measured adherence by unannounced pill count (a method of measuring rate of adherence) every 3-6 weeks, it was found that no patient with greater than 90% adherence progressed to AIDS over the 13-month follow-up period, compared with the 8% of those with 51-90% adherence and 41% with less or equal to 50% adherence.

Therefore, the conceptual framework of this whole study is clearly illustrated in the diagram below;



The diagram above shows a conceptual framework of this study. This framework therefore means that, if and only if the right ART treatment is sufficient (as it is currently) to give each and every client in need of it and on the other hand, the clients at Chifundo Clinic change their attitude and adhere to the ART treatment given to them, then the possible outcome will be a positive one where the lives of many clients will be saved for the good of the whole nation at large

3. CHAPTER THREE

RESEARCH METHODOLOGY

A non-experimental methodology was used in this study; this is for a simple reason that the study was conducted in a natural and uncontrolled environment at Chifundo Clinic in Chaisa Lusaka area which is the case study area for the study.

STUDY DESIGN

TABLE III. A non-interventional exploratory research design was used in this study. This is because a small scale study was undertaken within a short duration owing to the fact that the topic is new and little is known about this topic. The researcher further explored this situation in order to familiarize with the problem at hand.

DESCRIPTION/SETTING OF CASE STUDY AREA [CHIFUNDO CLINIC]

AIDS Healthcare Foundation (AHF), happens to be the largest global AIDS organization, currently provides medical care and/or services to over 300,000 individuals in 32 countries worldwide. In November 2013, the Aids healthcare foundation (AHF), together with a number of other organizations, kicked off '20x20', a groundbreaking global effort to scale up the number of people on lifesaving AIDS treatment to ensure that 20 million people worldwide are on antiretroviral treatment by the year 2020.

It was therefore from this initiative that Chifundo Clinic the case study area of this research was constructed and started its operations in May, 2014. Chifundo Clinic as the case study area of this research is situated in Chaisa Township in Zambia's capital city, Lusaka. Chifundo clinic which has a capacity of reaching out to 10,000 clients on HIV treatment (Antiretroviral Therapy ART), and also offers services like, HIV testing, counseling, tuberculosis treatment, condom distribution.

The healthcare facility was officially opened by Mandevu Member of Parliament, Jean Kapata,

Community Development, Mother and Child Health Minister, Emerine Kabanshi and Deputy Health Minister Dr Chitalu Chilufya.

Chifundo Clinic was opened mainly to create a great relief to residents in the area who were walking long distances to access medical services.

JUSTIFICATION FOR CHOOSING THE CASE STUDY AREA

The researcher chose Chifundo Clinic to be the case study area of this research because of a number of reasons and these include; it happens to be located in the researchers town of residence, it is cost effective, it is where most people in need of the antiretroviral therapy services are found, these are but a few of the reasons justifying the selection of the case study area.

SAMPLE DESIGN

TARGET POPULATION

The researcher targeted both people in need of antiretroviral therapy treatment and those offering the service at Chifundo Clinic, in Chaisa township of Lusaka.

SAMPLING TECHNIQUE

Snowball sampling procedure was used in this study. Snowball sampling (or chain sampling, chain-referral sampling, referral sampling) is a non-probability sampling technique where existing study subjects recruit future subjects from among their acquaintances. Thus the sample group is said to grow like a rolling snowball. As the sample builds up, enough data are gathered to be useful for research. This sampling technique is often used in hidden populations which are difficult for researchers to access; example populations would be drug users or sex workers. For example, people who have many friends are more likely to be recruited into the sample. Therefore, this sampling method will be appropriate for finding people living with HIV who are willing to participate in the study.

SAMPLE SIZE

The research study comprised of a sample size of 30 respondents chosen randomly as long as they are receiving the antiretroviral therapy treatment from Chifundo Clinic.

DATA COLLECTION

The data was collected using open-ended questionnaire, which guided the research during interviews with respondents at the Clinic and in-depth interviews with health centers in charges and other staffs. Other sources of data collection will be documents in clinics for patients to assess the number of those who adhere to ART.

METHOD OF DATA PROCESSING AND ANALYSIS

Qualitative data was collected from open interview discussions and the interviews with clinic staffs were analyzed using thematic data analysis.

This therefore entails that, similar responses were grouped into themes then later assigned with codes and came up with a summary. On the other hand, quantitative data will be analyzed using computer data analysis software (SPSS and excel) then finally explained qualitatively as a study demands.

VALIDITY AND RELIABILITY OF MEASURES

The validity and reliability of the measures of the data collected are all about whether the researcher was using the right instruments to collect my data and if the measures are consistent respectively. In this case the researcher thinks the measures that were used to collect data were very good, which is, the administering of questionnaires, another way to make my confirmation that my data was valid is through the method the researcher used to analyze it, that is excel, this software was able to bring out the required graphs.

ETHICAL CONSIDERATIONS

Ethics are known to be acceptable and unacceptable behavior in the conduct of a research which also has norms which promote the aims of this research such as knowledge, confidentiality, truth and avoidance of error. Ethical issues were therefore put into consideration throughout the study starting with the acknowledgement of other people's work by citing accordingly. The language barriers by different respondents were also put into consideration and adjustments where necessary.

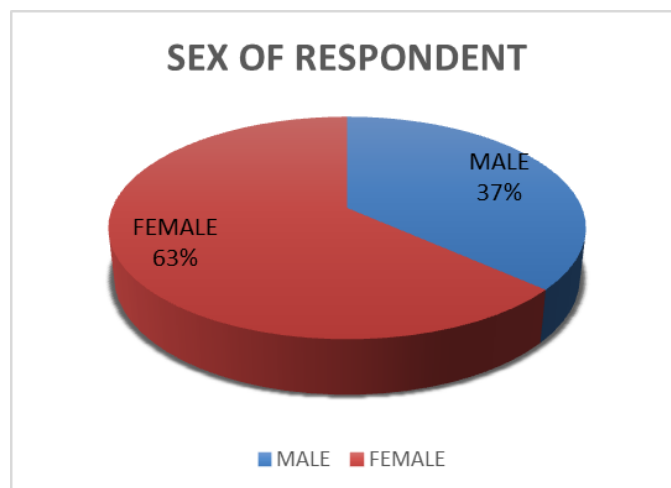
4. CHAPTER FOUR

DATA PRESENTATION AND DATA ANALYSIS

This chapter examines the descriptive data and properties that were investigated in the sample and the properties to be discussed in this chapter include the respondents Gender, age, marital status, and education level from the first part and the major research questions found in part two of the questionnaire will also be presented and analysed accordingly.

The following were the research findings;
SEX OF RESPONDENT

MALE	11
FEMALE	19

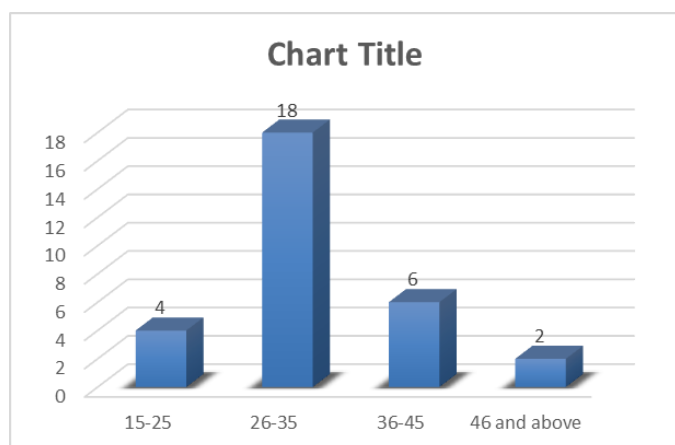


From a sample size of 30 respondents that were used in this study, the results show that only 11

were males and 19 were females, and these findings were represented by 37% of males and 63% of female participants in the study respectively. It is from the participation of difference that we can confidently deduce that the majority of people that are in need of the ART treatment are the females.

AGE OF RESPONDENT

Figure. 2



A set of age-range was presented in the first part of the questionnaire in trying to find out the age of the respondents in the study. The age sets therefore ranges from 15-25 years old, 26-35 years old, 36-45 years old and the last been 46 years and above.

The results that were obtained in the study indicate that only 4 respondents were of the age ranging from 15-25 years old, 18 was the largest number of respondents that came from the age group of those aged between 26-35 years old, 6 respondents were of the age range of 36-45 years and only 2 respondents were 46 years old and above.

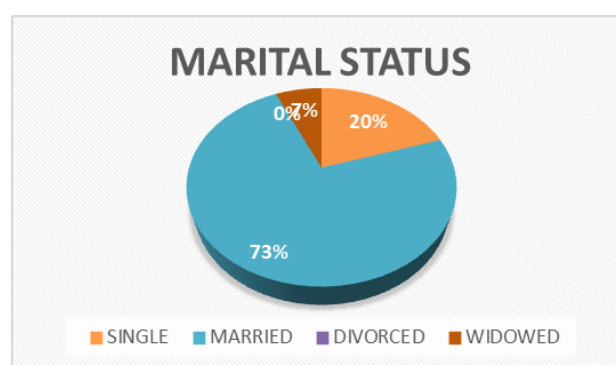
From the above stated results, it can be seen that most respondents or the majority of people in need of ART treatment at Chifundo Clinic are those that are aged between 26-35 years old representing 60% of the sample and this can be considered as a normal occurrence considering that it is in this age range that many people tend to be prone to dangerous vices that eventually make them people that are in need of ART treatment. This is followed by the age group of 36-45 years consisting 6 respondents representing 20% of the sample, then

those that ranged from 15-25 years old were 4 representing 13% of the sample and lastly been those aged 46 years and above representing 7 % of the sample.

MARITAL STATUS

Figure. 3

SINGLE	6
MARRIED	22
DIVORCED	0
WIDOWED	2

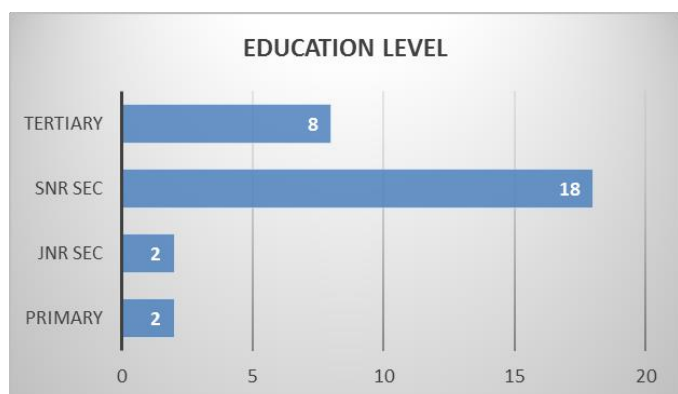


It was when respondents during the study were asked about their marital status that it was discovered that none of them was divorced and hence representing 0% in the study. The respondents that were widowed were only 2 representing 7% of the study while those that were single were only 6 representing 20% of the study and those that responded to be married were of the largest number been 22 representing 73% of the study as shown in the graph above.

This therefore means that, the majority of people that access the ART treatment at Chifundo Clinic (the case study area of this study) are people that are married.

EDUCATION LEVEL

Figure. 4



When the researcher wanted to know the education level of the people that were involved in the study at Chifundo Clinic, the responses were given as shown in the figure above. The total number of respondents that had gone up to primary school level was only 2 representing 6.5% of the study's sample size. The number of those that went up to junior secondary school level was the same as those that went up to primary level been 2 and this also represented 6.5% of the study's sample size. The number of respondents that went up to senior secondary school level comprised the largest number been 18 and representing 60% of the total sample size. The respondents that went up to tertiary level comprised of the second highest number of respondents been 8 and representing 27% of the study's sample size.

This therefore can be deduced that the majority of people in the study are those that have gone up to senior secondary school level of education and this means that most people access ART treatment at Chifundo Clinic have completed their grade 12 education in High Schools but have not proceeded to either College or University.

TYPE OF ART TREATMENT OFFERED AT CHIFUNDO CLINIC

This question was asked to the members of staff at Chifundo Clinic and the response was as below and further explained; Antiretroviral used to treat HIV include nucleoside reverse transcriptase inhibitors

(NRTIs), non-nucleoside reverse transcriptase inhibitors (NNRTIs), and protease inhibitors.

NUCLEOSIDE REVERSE TRANSCRIPTASE INHIBITORS (NRTIS)

Nucleoside reverse transcriptase inhibitors, also called nucleoside analogs or nucleosides, interfere with the life cycle of HIV by preventing the transcription of viral RNA into DNA.

NON-NUCLEOSIDE REVERSE TRANSCRIPTASE INHIBITORS (NNRTIS)

When HIV infects a CD4 cell in a person's body, it copies its own genetic code into the cell's DNA. In this way, the cell is then "programmed" to create new copies of HIV. HIV's genetic material is in the form of RNA. In order for it to infect CD4 cells, it must first convert its RNA into DNA. HIV's reverse transcriptase enzyme is needed to perform this process. NNRTIs, also known as "non-nucleosides" or "non-nukes" for short, attach themselves to reverse transcriptase and prevent the enzyme from converting RNA to DNA. In turn, HIV's genetic material cannot be incorporated into the healthy genetic material of the cell, and prevents the cell from producing new virus.

PROTEASE INHIBITORS

These are a class of antiretroviral that is widely used to treat HIV/AIDS and hepatitis caused by hepatitis C virus. Protease inhibitors prevent viral replication selectively binding to viral proteases (e.g. HIV-1 protease) and blocking proteolytic cleavage of protein precursors that are necessary for the production of infectious viral particles. Protease inhibitors have been developed or are presently undergoing testing for treating various viruses.

NUMBER OF CLIENTS ENTITLED TO ACCESS ART TREATMENT AT CHIFUNDO CLINIC

This question was again asked to the members of staff at the case study area (Chifundo Clinic). The response was therefore that Chifundo Clinic has a capacity of reaching out to 10,000 people and

offering a number of services and some but a few to mention include; HIV testing, counseling, tuberculosis treatment, condom distribution and not forgetting Anti-Retroviral Therapy (ART) which takes three quarters of the total number.

Furthermore, the Clinic gives the people access to quality health services within the community of Chaisa and Lusaka at large.

CONDITIONS ATTACHED FOR ONE TO ACCESS ART TREATMENT

This was one of the most fundamental questions in the study which was administered to the Clinic management and the response was as follows; Treatment with HIV medicines (called antiretroviral therapy or ART for short) is recommended for everyone infected with HIV. ART helps people with HIV live longer, healthier lives and reduces the risk of HIV transmission.

The Department of Health and Human Services (HHS) at Chifundo Clinic gave guidelines on the use of HIV medicines in adults and adolescents and recommended that people with HIV start ART as soon as possible. In HIV-infected people with certain conditions, it is especially important to start ART right away.

On the other hand, there are a number of conditions that increase the need to start ART treatment immediately and some but a few include; Pregnancy, AIDS, Certain HIV-related illnesses and confections, and lastly but not the least being early HIV infection.

PREGNANCY

All pregnant women with HIV should take HIV medicines to prevent mother-to-child transmission of HIV. The HIV medicines will also protect the health of the pregnant woman. In general, women who are already taking HIV medicines when they become pregnant should continue taking HIV medicines throughout their pregnancies. If HIV infection is diagnosed during

pregnancy, the HIV-infected pregnant woman should consider starting ART right away.

AIDS

Acquired immunodeficiency syndrome (AIDS) is the most advanced stage of HIV infection. People with AIDS should start ART immediately. A diagnosis of AIDS is based on the following criteria: A CD4 count less than 500 cells/mm³. A low CD4 count is a sign that HIV has severely damaged the immune system and the presence of an AIDS-defining condition. **AIDS-defining conditions** include opportunistic infections and cancers that are life-threatening in a person with HIV. Certain forms of cervical cancer and tuberculosis are examples of AIDS-defining conditions.

HIV-RELATED ILLNESSES AND COINFECTIONS

Some illnesses that develop in people infected with HIV increase the need for ART. These illnesses include HIV-related kidney disease and certain opportunistic infections (OIs). OIs are infections that develop more often or are more severe in people with weakened immune systems, such as people with HIV. Confection is when a person has two or more infections at the same time. People who are infected with HIV and certain other infections, such as hepatitis B or hepatitis C virus infection, should consider starting ART immediately.

Early HIV infection

The period up to 6 months after infection with HIV is called early HIV infection. During early HIV infection, the level of HIV in the body (called viral load) is very high. A high viral load damages the immune system and increases the risk of HIV transmission.

AFTER HOW LONG CAN ONE RECEIVE MORE ART TREATMENT

This question was asked to the clients or patients that receive the ART treatment and the response from the respondents was that it all depended on the number of drugs that was given to the them and that before the pills given get finished, the patient is supposed to go to the health care providers and get a refill of the required drugs to continue with the schedule.

AS CLIENTS, DO YOU HAVE CHALLENGES IN ACCESSING ART TREATMENT

This question was asked to the clients of Chifundo Clinic who are the patients getting the treatment. The response was a common and same response from all the clients who said there was no challenge when accessing ART treatment at Chifundo Clinic as all the members of staff were kind enough and willing to give the required help to the ART patients.

AS CLIENTS, WHAT ARE THE REASONS YOU FIND IT DIFFICULT TO ADHERE TO ART TREATMENT

This was also one of the major questions in the study and it was administered to the Clients of Chifundo Clinic who are the people in need of the ART therapy.

It aimed at making them (patients) bring out the full reasons why they do not adhere to ART treatment as the thesis of the study was in the same line.

FINDINGS

Lack of motivation after saving the child.

This reason was gotten from the women that were involved in the study. Eleven of the 19 women made mention that their motivation to take ART was high while they were still breastfeeding and protecting their children from infection despite side-effects and stigma related difficulties. Once they weaned their children and knew the baby was well, women's incentives to adhere to ART declined

dramatically; despite low CD4 cell counts. As two women openly described their situation to the researcher.



Feeling well/ much better

Feeling well was one of the major reasons that all the respondents brought out as the reason of poor adherence to ART treatments they were prescribed to. Here both the male and female respondents clearly stated that they felt relatively well and therefore did not think that stopping treatment would be harmful in any way.



Figure 4.1: Showing signs of fitness or well being
Lack of family support

Lack of family support acted as a barrier to adherence and family arguments stopped them from taking medication. One female respondent in the study emotionally and bitterly explained that no family member gave her the support she deserved and it was out of that frustration that her adherence pattern was disturbed.

Feeling of hopelessness

As most of the women were diagnosed to be HIV infected when they were screened at the antenatal clinic they had no time to prepare themselves psychologically and adapt to a new way of life including ART adherence despite the counseling they got.

Poverty Levels among Patients

Of the 50 respondents that were involved in the whole study, 47 of them, both the male and female explained how difficult it was for them to incorporate all of the demands of PMTCT including adherence to ART for life into lives already burdened by poverty and the struggle to survive. Most of the respondents in this study had only gone up to junior secondary school education and hence, had low income to live a standard life that one on ART treatment ought to lead. Some, for example, had small stands from which they sold food, earning them enough income for one or two meals a day. Only two respondents had formal employment. The major concern behind this reason of non-adherence to ART treatment was that, when medical staffs prescribe the ART drugs to the patient, they strongly advise that one needs to have a meal before taking the drugs.



Figure 4.2: Housing infrastructure



Figure 4.3: Housing set up very close to the Pit Latrine and Garbage dumping site.

The unceasing demands of daily life Almost all the respondents of the study, both the females and the males in the study, gave to, this reason. They described how in the end and mostly after they had stopped breastfeeding they got seriously involved in their normal duties and could easily forget to take their drugs or could not find time to go to the clinic for drug refills as advised.



Figure 4.4: Showing a make shift store with the owner who is busy waiting for customers so that can sell to make ends meet.

Economic Constraints

Money emerged as the most commonly mentioned reason to non-adherence of ART treatment among both the male and female respondents in the study. The respondents reported economic worries related to the cost of transport costs involved, prescription, diagnosis, and food were but a few reasons that were given in regard to Economic constraint.

Transport costs emerged as a key theme; the people living with HIV (PLHIV) often did not have enough money to go to the health facility to get their repeat prescription “ refill” , and other necessary services required.

The effect of HIV related stigma

The respondents in the study all spoke explicitly about stigma. Because HIV infection is still highly stigmatized in Chaisa township where they reside and in Zambia at large. People are very much reluctant to let others see any activity that could disclose their HIV status, including taking medication, breastfeeding exclusively (as people are used to mixed feeding), or going to the clinic to get drugs. As per picture below a client is enclosed failing to come out fearing what the neighbors have been talking about her as she was seeing visiting Chifundo ART Clinic and tease her that “ KANAYAKA” in our local language meaning someone has HIV/AIDS.



Figure 4.5. Showing a closed door of a house in the community with a woman inside who has been stigmatized by the neighbors.

Side-effects of ART

Antiretroviral therapy side-effects were one of the most conferred themes in this study. Most participants had experienced side-effects, which increased non-adherence. One female respondent argued that ART caused a problem rather than good health as she could not tolerate the pain she was experiencing and decided to stop for a while.

TABLE IV. Doctors and other staff agreed that side-effects led some patients to stop taking ART.

These common side-effects included vomiting, diarrhea, body pain, skin rashes and reduced body fat.

CULTURAL AND RELIGIOUS BELIEFS



Figure 4.6. Showing a Church.



Figure 4.7. Showing a traditional Hearer's Stand.

Both male and female respondents linked non adherence to cultural beliefs where clients tend to take herbal medication in preference to Antiretroviral Therapy (ART). According to religious beliefs, it was revealed that religious leaders pray for them and declare that they have been healed of HIV by God and there is no need to continue being on HIV treatment.

ALCOHOL ABUSE

Three quarters of the respondents, both male and female linked none adherence to ART to excessive alcohol abuse. Clients get very drunk that they cannot remember to take their medication and worse still come to the clinic for continuous treatment.



Figure 4.8: Showing a man who is very drunk and is failing to walk.



Figure 4.9

MEASURES/ INTERVENTIONS PUT UP BY THE CLINIC TO IMPROVE ART ADHERENCE

This question was directed to the Clinic management at Chifundo Clinic as they were also responsible for putting up measures to tackle the problem of non-adherence that continuously existed among the patients in need of the ART therapy and the response was as follows;

The first component of the interventions was to introduce an appointment system and fast-track the 'refill-only' patients. Patients categorized as 'refill only' were experienced patients, who had been on treatment for at least 12 months from baseline, with a self-reported record of about 90% adherence to medication regimen. These were given appointments to come for refill of medications only and were fast-tracked through the clinic workflow without the need to be seen by clinicians or counselors if they did not report any complaints at triage. Traditionally, all patients would be required

to pass through all stages of the clinic workflow, where they would be reviewed by the counselors and clinicians before being dispensed with refill medication. This was in spite of whether they had health complaints or not, and would subsequently lead to clinic congestions. The appointment system consisted of a book where the next review date would be recorded and patients were encouraged to return on that particular date. An appointment diary was also given to the patient to act as a reminder. Thus, the clinicians would be able to ascertain in advance which patients to expect on any particular day, and by the end of the clinic day, which patients had not honored their appointments. Furthermore, electronic dispensing is rare in the health facilities because of its associated technological challenges.

The second component of the interventions was to recommend that prescribers at the health facilities increase the numbers of days of medicines dispensed (longer prescription) from the traditional 30– 60 days or 90 days for patients considered by the clinicians to be 95% adherent to their medication regimens. The aim was for such patients to make less frequent visits to the clinic, thus further reducing clinic congestion.

Health providers were provided with clear instructions to counsel the patients to report any problems during the scheduled visits or at any times without waiting for appointment days. This was to ensure that the patients remained in contact with clinicians at any time. In addition, the patients receiving longer prescription were to be seen by the clinician at least once every 6 months even when they had no complaints.

5. CHAPTER FIVE

CONCLUSION & RECOMMENDATION

CONCLUSION

This research study was aimed at extracting the reasons why people who are the patients at Chifundo Clinic which was the case study area of the research do not adhere to ART treatment. Adherence and non-adherence were the main issues at hand throughout this study as the reasons were

taken from both the service providers at Chifundo Clinic and the victims.

On the other hand, ART treatment was again a term that was used throughout the study in trying to fulfill the requirement of the topic at hand. ART is known as a life-long treatment that helps people with HIV live longer, healthier lives. In other words, antiretroviral therapy (ART) is a lifesaver for individual patients treated for Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS). But effective ART depends on medication adherence taking HIV medicines every day and exactly as prescribed. Adherence to an HIV regimen prevents HIV from multiplying and destroying the immune system. Taking HIV medicines every day also reduces the risk of HIV transmission.

TABLE V. Maintaining optimal adherence to antiretroviral drugs is essential for HIV infection management but on the other hand, it is a challenge over time in many settings in Africa and Zambia inclusive where the average 24-month retention rate in ART programs in the year 2007–2009 was only 70% (WHO, 2010). In Zambia, despite model scale-up program and intensive community work, there remains a significant HIV+ cohort that is eligible for ART but rejects HIV care programs and/or ART in particular despite low cost and good access to treatment.

In summary, from the findings why patients at Chifundo Clinic do not adhere to ART treatment that have been presented above, it can be deduced that non-adherence to ART was mainly associated with individual factors and exposure to ART and if serious government interventions were implemented in trying to promote people's adherence to ART there would be no to less reasons why people do not adhere to ART treatment and consequently saving a lot of lives at Chifundo Clinic and the whole Zambia at large. Therefore, having carried out the study in a systematic manner, the researcher can therefore conclude that non-adherence surely exists among people and can be dealt with if the interventions above are implemented accordingly.

RECOMMENDATIONS

It was after considering the research that the researcher came up with a number of recommendations that should be adopted in order to address the problem of people's non-adherence to ART treatment in Zambia and at Chifundo Clinic in particular;

Improving adherence requires a supportive environment and this environment should be created every person regardless of the status that one has.

TABLE VI. The ART treatment that is from the health care service providers should always be accessible to everyone entitled to them.

There should be clear instructions about regimens or schedules of taking drugs given to the patients or people that are in need of the treatment and these regimens should be tailored to the individual patients' lifestyles.

Healthcare workers should work tirelessly and address some of the practical and cultural issues around ART medicine that increasing non-adherence to the treatment.

The policy-makers should develop an appropriate social policy that is solely intended to promote adherence among ART-prescribed patients.

The health-care providers should accurately identify patients whose risk of non-adherence is sufficient to undermine clinical outcomes. Once non-adherent patients are identified, health-care providers should implement a variety of interventions to enhance adherence. Strategies for intervention should aim at assessing adherence as part of a follow-up program.

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