

Factors associated with antiretroviral treatment default at Citimed Hospital, Zimbabwe

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ABSTRACT

While the HIV prevalence rate in Zimbabwe dropped from 24 to 14%, a lot of people continue to live with the virus. Anti-retro Viral Treatment was introduced in the country to prolong lives. The objectives of the study were to determine the factors associated with antiretroviral treatment (ART) default at Citimed hospital, establish the causes of default and to ascertain clients' knowledge about the importance of adhering to ART. This was necessitated by a preliminary analysis of the 2015 data at Citimed hospital which revealed that out of 1200 clients who had registered for ART, about 10% of the clients had defaulted treatment since 2013, when it opened its doors to cater for ART clients. This raised a lot of concern among ART clinic programme managers on why that was happening. A quantitative research was conducted. Respondents were identified using systematic random sampling to come up with a sample size of 60 respondents. A structured questionnaire was used for data gathering. Results are presented in tables and pie-charts as well as narratives for descriptive statistics. The major findings included lack of transport to visit the hospital, time constraints as the employee could not be readily released from work to visit the hospital, unemployment resulting in lack of funds and knowledge deficit. The major recommendations to the ART facilities included implementation of the multi-disciplinary centred approach, establishing patient education programmes and patient support.

Keywords: Anti-retroviral treatment, defaulted, treatment adherence.

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INTRODUCTION

Long term regular follow up of antiretroviral therapy (ART) is an important component of HIV care. Patients who are lost to follow-up (LTFU) while on treatment compromise their own health and the long term success of ART Programmes.

Background to the study

Human Immuno-deficiency Virus (HIV) and Acquired Immune deficiency Syndrome (AIDS) have become some of the most destructive plagues in the history of mankind. The deadly effects of HIV and AIDS are felt all over the World (Van Dyk, 2011).

The HIV prevalence rate in Zimbabwe dropped from 24 to 14% according to the 2017 survey report by the

Zimbabwe Population Based HIV Impact Assessment (ZIMPHIA). The situation in Zimbabwe is of great concern with an adult prevalence rate among the 15 to 49 age group ranging from 11.7 to 14.9%.

The ART has greatly improved the lifespan and quality of life of people living with HIV and AIDS. Van Dyk (2011) agrees that for the successful management of the HIV and AIDS epidemic, it is imperative that the condition be treated and accepted as a chronic disease. Wasti (2012) maintained that ART provides relief for infected individuals by reducing the likelihood of opportunistic infections rather than curing the disease.

Van Cutsem (2011) indicated that patients lost to follow up may be at high risk of death. Unstructured interruption of treatment can lead to the development of drug resistance. An understanding of the reasons for not

returning to care is important to the design of a cost effective ART programme (Brinkhof et al., 2009).

Problem statement

A preliminary analysis of the 2015 data at Citimed revealed that out of the 1200 clients who had registered on ART, about 10% of the clients had defaulted treatment since 2013, when it opened its doors to cater for ART clients. Clients who defaulted came back to hospital unwell and some have since passed on. This raised a lot of concern among ART Clinic programme managers.

Purpose

The purpose of the study was to determine factors associated with antiretroviral treatment default among ART clients at Citimed hospital.

Objectives of the study

Objectives of the study include:

1. To explore the experiences of HIV and AIDS infected patients regarding the services provided at Citimed hospital.
2. To determine HIV and AIDS infected clients' knowledge about HIV and AIDS treatment adherence at Citimed hospital.
3. To establish the reasons why HIV and AIDS infected patients defaulted on antiretroviral treatment at Citimed hospital.

Significance of the study

In nursing practice, this research might provide information to program managers on how best they can deal with defaulters. It is hoped that the quality of care for patients on ART will improve and reduce cost of putting people on second line treatment as well as reduce morbidity and mortality. Findings may assist to influence policy especially in nurse education. The findings might be a valuable addition to the field of knowledge in nursing

Theoretical framework

The researchers employed the social-ecological framework which was adapted to explore the factors that influence patient attraction from ART care. The framework provides a comprehensive approach to understanding health seeking behaviors.

Individual level factors comprise of the personal

characteristics such as perceived disease severity, illness and weakness interpretations, knowledge, attitudes towards treatment as well as somatic response to medication. Social factors include interpersonal relationships with the church, traditional health care system, marital relationships, and peers who in turn, affect individual behavior and action.

The relationship between health professionals and clients is structured by social orders, social distance and poor relationships between health workers and patients. This can affect access to treatment.

Structural factors include poverty, livelihood, health policies, laws and regulations and the financing of the health care system, which is linked to the national economy. (Figure 1)

METHODOLOGY

Study setting

The study was conducted at Citimed hospital which is a 24 h service private hospital. The hospital is a 150 bedded institution and serves a population of approximately one million. The hospital offers ART services with the aim of improving survival and quality of life for ART patients. There are several hospitals providing ART in Zimbabwe and Citimed is located in one of the heavily populated cities where HIV prevalence rate is quite high. While there are other ART providers, more clients visit Citimed because of its proximity to residential areas.

Research design

In this research, the researchers conducted a qualitative study. The researchers set out to determine factors associated with high ART default rate at Citimed hospital. This design was used as the researchers wanted to establish the number of respondents involved as well as understand the reasoning behind the default.

Population and sample

The population included all registered HIV/AIDS infected clients at Citimed hospital who defaulted antiretroviral treatment. The researchers used random sampling method. A structured questionnaire was used to collect data from 60 respondents. Section A of the questionnaire addressed the demographic data of the respondents. Section B looked at questions related to the clients' knowledge about HIV and AIDS treatment adherence at Citimed as well as reasons why HIV and AIDS patients defaulted on treatment. Section C explored the respondents' attitude and practices regarding

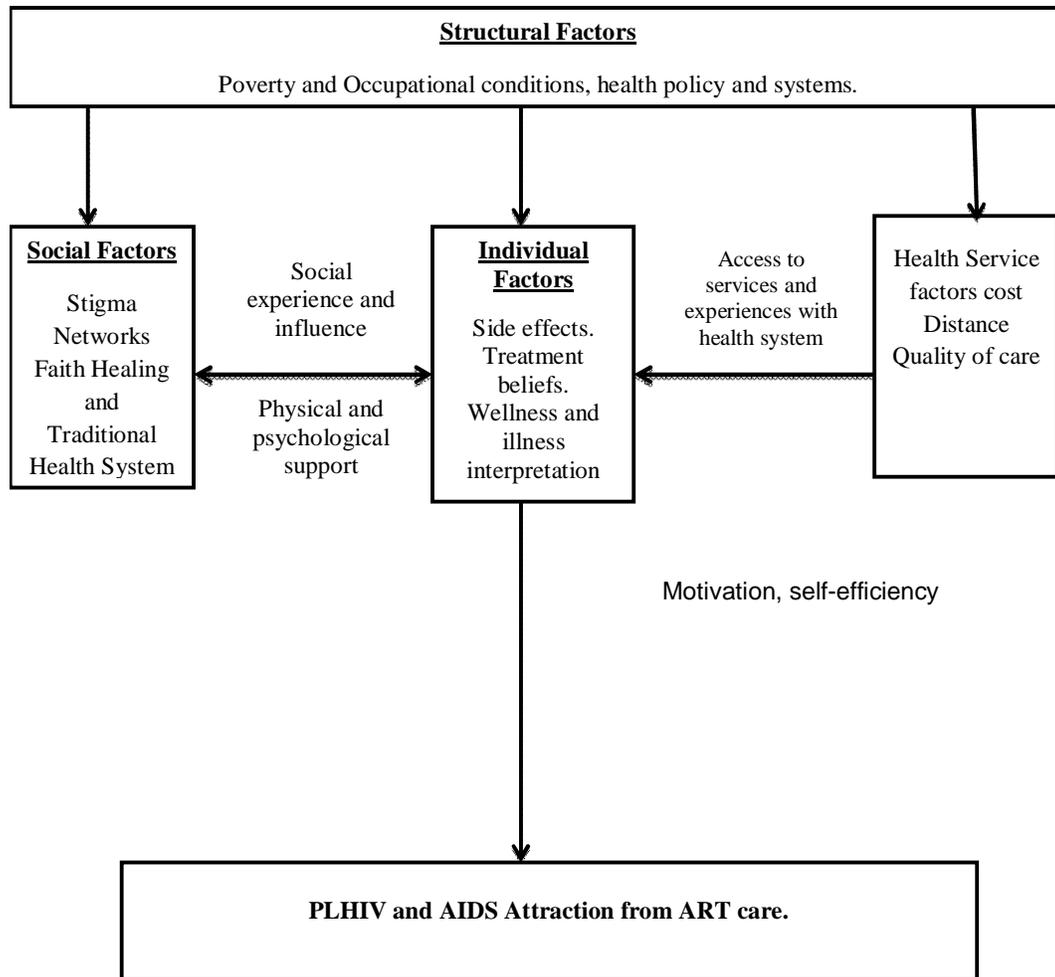


Figure 1. Socio-ecological framework.

antiretroviral treatment.

Data collection

Data were collected over a period of two weeks using a structured questionnaire from key informants. The researchers drew up a list of defaulters. Every second person on the list was picked and interviewed. Confidentiality was maintained at all times. The researchers collected the data which was kept under lock and key by the principal investigator.

RESULTS

Out of the targeted 60 respondents, 50 interviews were successfully conducted. This gave a response rate of 83.3% which the researchers found to be quite satisfactory (Table 1).

Some respondents could not spare time to fully attend

Table 1. Response rate.

| Parameter | Number (N) | Percentage (%) |
|-------------------|------------|----------------|
| Respondents | 50 | 83.3 |
| Spoilt papers | 6 | 10 |
| Lost to follow up | 4 | 6.7 |
| Total | 60 | 100 |

N = 60.

to the interview. In a few circumstances, the respondents showed no interest or for some reasons did not want to cooperate.

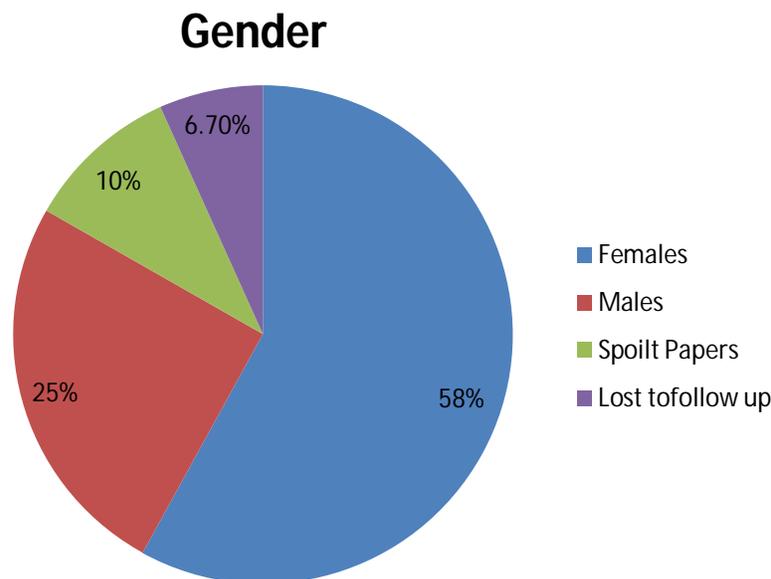
Thirty six (60%) of the ART clients were between the age group 26 to 49 years which is considered to be the most productive age group. 12 (20%) were between 18 and 25 years, 2 (3.3%) were 50 years and above (Table 2).

The majority of the respondents were females 35 (58%) compared to 15 (25%) male (Figure 2). This is

Table 2. Respondents' age.

| Age | Number (N) | Percentage (%) |
|-------------------|------------|----------------|
| 18-25 | 12 | 20 |
| 26-29 | 36 | 60 |
| 50+ Years | 2 | 3.3 |
| Spoilt papers | 6 | 10 |
| Lost to follow up | 4 | 6.7 |
| Total | 60 | 100 |

N = 60.

**Figure 2.** Respondents by gender. N = 60.

commensurate with ART clients at Citimed where there are more females than males.

It can be noted that 12 (20%) clients in the study mentioned that the reason for defaulting treatment was lack of money for transportation due to circumstances beyond their control (Table 4). Eight (13.3%) cited relocation as the main reason for defaulting treatment. Varied reasons were cited for the default as indicated in Figure 3. Three respondents cited that they defaulted treatment because of stress and depression.

Knowledge of HIV

The majority of the participants 50 (83.3%) had good understanding of HIV and 10% of the participants were spoilt papers and 6.7% were lost to follow up. respondents clearly explained HIV as the virus that causes AIDS (Table 3). It was evident from the findings that respondents had information about HIV and the fact that one is infected with the virus first and then later the virus will progress to AIDS. When this happens, the

Table 3. Knowledge on the importance of ART adherence.

| Parameter | Number | Percentage |
|-----------------|--------|------------|
| Very important | 36 | 60 |
| Important | 14 | 23.3 |
| Non respondents | 10 | 16.7 |
| Total | 60 | 100 |

N = 60.

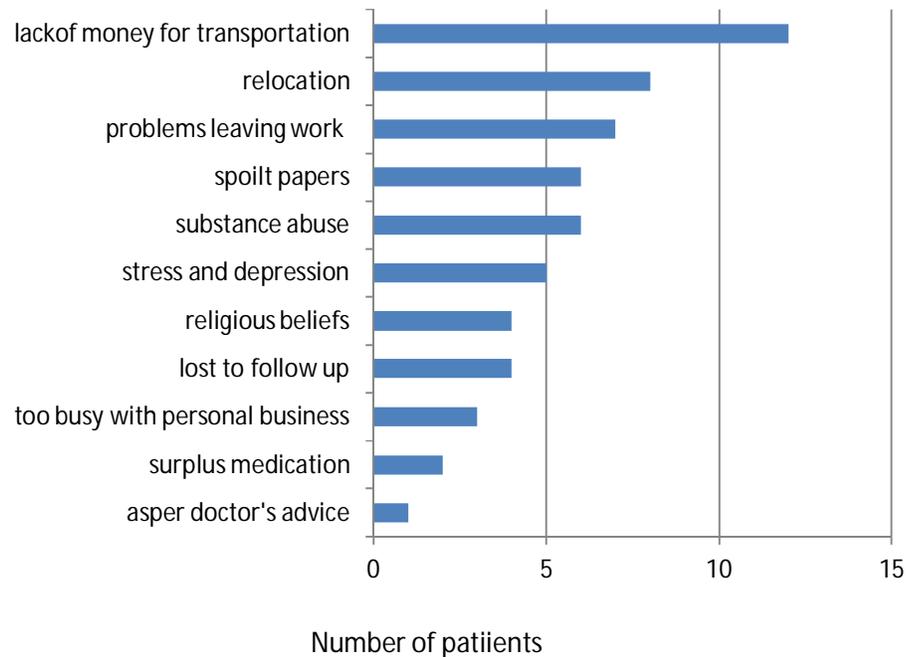
person becomes ill and this means his or her immune system is weak. All the participants had basic knowledge about HIV and AIDS. Respondents demonstrated knowledge that HIV is not a curable disease but it can be managed by antiretroviral treatment (Table 1).

DISCUSSION

The discussion focuses mainly on the findings of the study. The respondents had a good understanding of HIV. They demonstrated knowledge that HIV is not

Table 4. Respondents' by reasons for defaulting antiretroviral treatment.

| | | | | | | | | | | | | | |
|----------------|----|-----|-----|------|------|-----|----|-----|---|-----|----|-----|-----|
| Number (N) | 12 | 2 | 2 | 7 | 8 | 1 | 6 | 5 | 3 | 4 | 6 | 4 | 60 |
| Percentage (%) | 20 | 3.3 | 3.3 | 11.7 | 13.3 | 1.7 | 10 | 8.3 | 5 | 6.7 | 10 | 6.7 | 100 |

**Figure 3.** Respondents' by reasons for defaulting antiretroviral treatment.

curable, but it can be managed by antiretroviral treatment. They clearly highlighted that in order to prevent the spread of HIV infection one needs to abstain from sex or practice safe sex. They were aware of the fact that when one becomes sick, the CD4 count drops. This serves as an indicator to start ART.

Respondents' knowledge about ART regimens

Adherence to medication is essential to ensuring effective management. The empirical findings confirmed that the majority of respondents had no knowledge of their treatment regimens. Lack of knowledge about treatment regimens can be attributed to lack of continuous adherence counselling. This may result in gaps in patient knowledge which may contribute to non-adherence.

Respondents' perception and experience of using antiretroviral treatment

Findings of this study revealed levels of knowledge deficit among clients on ART. Respondents did not have knowledge about their treatment regimens. These findings are consistent with findings from previous studies

by Jin et al. (2008:277) who stated that participants who lack knowledge about ART are likely to default treatment.

The use of antiretroviral treatment is perceived in different ways. In this study, participants emphasized the importance of taking treatment and confirmed that, after taking treatment, their health improved considerably.

Challenges faced by participants while on antiretroviral treatment

Taking antiretroviral treatment poses challenges to patients. These include fear of disclosing their HIV status and stigmatization. Although the majority of participants disclosed their HIV positive status, it was clear from the findings that some were afraid to disclose their status and this further limited them from obtaining support from their families. The adverse effects of drugs was also found to be a challenge as some respondents reported feeling tired whilst they are at work and others were unable to seek employment due to ill health.

Limitations

1. More information could have been obtained if the researchers were able to trace on those clients who were

lost to follow up.

2. Data collected about defaulters and deaths could be an underestimation of what actually prevails on the ground.
3. Inability to locate some of the patient charts during the data collection period was a limitation. This could be due to lack of standardized record keeping system.

Conclusion

The study findings indicated that clients knew about the importance of drug adherence. However, transport issues, failure to get permission from work as well as religious belief were cited as some of the reasons for non-adherence. Zimbabwe's response to HIV and AIDS has evolved over the last few years. Being diagnosed with HIV can be distressing and challenging to individuals. A person living with HIV needs to develop strategies to cope with the daily challenges of HIV and AIDS. The availability of ART has transformed the management of HIV and has given hope to millions of people living with HIV. In order for ART to be effective, patients need to adhere to their treatment and this has emerged as a challenge to many patients as ART requires a life-long commitment (Miller et al., 2010). There is no doubt that most patients are unable to adhere to treatment. Adherence is necessary to ensure the effectiveness of ART.

RECOMMENDATIONS

1. Health professionals should acknowledge that every patient is unique and needs to be attended to as an individual in order to be able to develop an individual treatment plan. The necessity of patient involvement in the treatment plan should also be encouraged. Patient specific counselling may lead to better knowledge and in turn promote adherence.
2. In order to maximize the benefit of ART, patients should be educated on the need of adhering to treatment schedules and taking treatment correctly. Health care workers need thus to intensify health education which can be addressed by means of the following:
3. Continuous education and the availability of promotional material to empower patients about HIV and AIDS, ART and other related topics such as nutrition management, management of stress, TB, dealing with HIV and AIDS stigma, and disclosure of HIV positive status.
4. Health talks in the clinic during patients' visits and through the local media. These education strategies will benefit patients on ART and those who are not on treatment yet. Patients' knowledge about the condition and medicine can influence adherence.
5. With regard to lack of money for transportation, patients should be encouraged to take treatment at their nearest treatment facilities.

6. Establish projects such as gardening to alleviate poverty and enhance food sustainability. This should be facilitated by the social workers at Citimed Hospital.
7. Advocate for individual counselling and education on the use of medication and identify and address the challenges that the patient presents with during consultations.
8. Further research needs to be conducted on the prevalence of drug resistance on ART patients.

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