

# Factors Influencing Adherence to Antiretroviral Therapy among Sero-Positive Clients at a County Hospital - Nairobi, Kenya

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**Abstract:** *Antiretroviral therapy (ART) has shown to improve the health and prolong the lives of most Sero-positive clients. In comparison to other therapies, the efficacy of Antiretroviral therapy depends on strict adherence to the regimen. This poses the greatest challenges ever to many clients initiated on the therapy. Obtaining the full benefit from the therapy is a complex individual behavioral process influenced by many and broader factors. The study sought to determine the factors that influence adherence to Antiretroviral Therapy among the Sero-positive clients initiated on ART. Study objective: To determine the factors affecting adherence to antiretroviral therapy among the Sero-positive clients at a county hospital in Nairobi, Kenya. Methodology: A cross-sectional study design was conducted at Mbagathi county hospital, Comprehensive Care Clinic. Convenient sampling method was used to select the 85 respondents to participate in the study. A structured-self-administered questionnaire was used to collect the data., which was then analyzed by use of Statistical Package for Social Sciences (version 24). Relevant approvals/ Authorities to collect data were also obtained. Results: Most respondents severely affected by the scourge belonged to the child-bearing age group between 15-49 years with majority (42.6%) aged between 25-34 years. Conclusion: Factors that were significantly associated with high ART adherence levels included adequate knowledge regarding the therapy, accessibility of the ART and positive attitude towards the therapy. However, Stigmatization and discrimination were found to be the main obstacles to effective ART adherence. The study concluded that there are increased HIV infections among the child-bearing age group (15-49 years) with more HIV infections among women.*

**Keywords:** Antiretroviral therapy, Adherence, clients, Sero-Positive

## 1. Introduction

Factors significantly associated with high Antiretroviral adherence levels include adequate knowledge regarding the therapy, accessibility of the ART and positive attitude towards the therapy. However, Stigmatization and discrimination were found to be obstacles to effective ART adherence. There are increased HIV infections among the child-bearing age group (15-49 years) with more HIV infections among women. ART has improved the Health of many ART has improved the Health of many. Adherence to antiretroviral therapy involves client's ability to follow a treatment plan, that is take medications at the prescribed times, frequencies, following restrictions regarding food, fluid and other medications [1]. Four categories of factors have been identified by recent studies to influence adherence to antiretroviral therapy. These include clients factors, client-health provider relationships, medication regimen and disease characteristics. This formed the basis for this study to identify factors influencing adherence to antiretroviral therapy among Sero- positive clients at a county Hospital in Nairobi.

## 2. Study Objective

The objective of this study was to identify factors influencing adherence to antiretroviral therapy among Sero-positive clients at a county hospital in Nairobi.

## 3. Literature Review

Antiretroviral Therapy has greatly improved the overall health of individuals living with HIV/AIDS. Several studies have reported increased virologic and immunologic effectiveness of ART and the consequent reduction in mortality and morbidity associated with HIV/AIDS Perfect adherence to HIV medications is critical for successful treatment particularly for prevention of viral replication. The length and quality of life among the people living with HIV/AIDS have dramatically changed with advent of ART [2]. Regimens have been simplified in recent years to fewer doses, less food and fluid restrictions and are generally more tolerable, but treatment regimen still requires high adherence levels of or above 95% in order to be effective.

## 4. Study Methodology

### 4.1 Study Design

A cross-sectional study design was used to collect data from 85 respondents in a county hospital in Nairobi, Kenya at the Comprehensive Care Clinic using convenient sampling method.

### 4.2 Data Collection and Analysis

A Structured self-administered questionnaire was used to obtain the data from the respondents. The questionnaire was

developed in two versions (English and Kiswahili), with the respondents being requested to choose the version of their own choice. However, the investigator was available to give any assistance when ever need arose.

The data collected was edited to ensure conformity and keyed into a computer. Data analysis was done using Statistical Package for Social Science (SPSS) version 24 and Excel for windows XP. Descriptive statistics for socio-demographic characteristics were obtained to characterize the study respondents. Depending on the type of variable, a summary of appropriate measurement scale was used to describe distribution of these variables. Level of Adherence was calculated from client's response to having missed any of the prescribed medications for the previous three days. High level of adherence was defined as having adhered to all prescribed ART. Low levels of adherence were also defined.

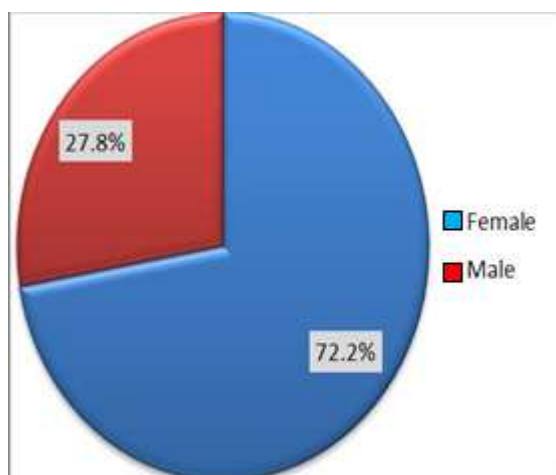
### 4.3 Ethical clearance

Ethical clearance was obtained from Kenyatta National Hospital (KNH/UON) Ethics and Research Committee, National Commission for Science, Technology and Innovation. Also permission was sought from Medical superintendent, Mbagathi county hospital before collecting data at the comprehensive care clinic (CCC).

## 5. Study Results

### 5.1. Socio-demographic characteristics of the respondents

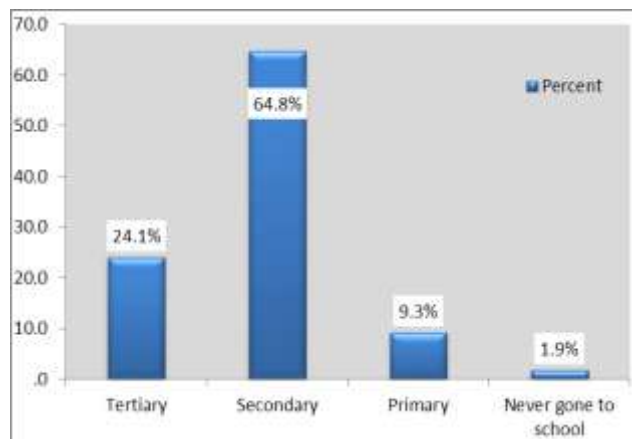
Out of the 85 respondents who participated in the study, 72.9 % were females while 27.1% were males (Figure 1). These figures presented an approximate female to male ratio of 3:1. The study is consistent with the one done by Kenya National Bureau of Statistics which reported higher prevalence rate among females (8%) than males (4.3%) and among the total number of new infections, women accounted for 59.1% [3].



**Figure:** Respondents' gender

The findings showed that majority (64.8%) of the respondents had attained secondary levels of education and

had reported better adherence levels than the ones with inadequate education (Figure 2).



**Figure 2:** Respondents' educational levels

The results showed that majority 49 (57.4%) of the respondents had adequate knowledge about Antiretroviral Therapy. Twenty-seven 24(27.7%) respondent stated that Antiretroviral Therapy was a treatment regimen for treating opportunistic infections. However, nine (10.6%) of the respondents were aware that the prescribed therapy was used to treat HIV/AIDS while three (4.3%) of them were aware that it was a treatment regimen for preventing HIV infection. These last two groups of respondents were classified as possessing inadequate knowledge about HIV/AIDS.

**Table 1:** Respondents' responses on accessibility of ART

Responses	Strongly agree	Agree	Disagree
Drugs are always available in the clinic	47(55.6%)	36(42.6%)	2(1.9%)
The comprehensive care clinic is easily accessible	76 (88.9)	9 (11.1%)	0 (0%)
I always experience financial problems while trying to access ARV drugs at the hospital	46(53.7%)	38 (44.4%)	2 (1.9%)
I have been turned away several times because of lack of drugs in pharmacy	0	2(1.9%)	83 (98.1%)

Fifty-five (55.6%) of the respondents strongly agreed that the ARVs were always available in the clinic with only (1%) disagreeing. However, none of the respondents reported to have been turned away because of lack of drugs in the pharmacy (Table 1).

## 6. Discussions

This study was carried out to establish the factors influencing adherence to antiretroviral therapy among the Sero-positive clients attending Comprehensive Care Clinic in Mbagathi county Hospital. According to world health organization ART guidelines, knowledge about HIV/AIDS, attitude towards the therapy, health provider client relationship, stigmatization and discrimination have a major influence on the ways in which a client adheres to the prescribed ART [1]. The findings of the current

study showed that, majority (90%) of the participants had positive attitude towards ART. Those who reported having adhered well to the prescribed ART also reported positive attitude towards the therapy. The positive attitude portrayed by majority of the respondents may have resulted from benefits the clients were experiencing after ARVs use. The fact that majority (94.4%) of the respondents strongly agreed that the antiretroviral drugs were always available and easily accessible in the comprehensive care clinics demonstrated that there is adequate accessibility and availability of ARVs in the country. Since 1990s, Kenya has seen a large expansion in access to antiretroviral drugs [4]. ARVs are distributed throughout all health care facilities including private and faith based organizations. The Ministry of Health has also been working in collaboration with several sectors including non-governmental organizations and civil societies to ensure easy accessibility and availability of ARVs especially in remote areas [5]. The accessibility has also been simplified by the fact that the treatment is provided free of charge to all clients who are eligible for treatment. Viral suppressing effect of HAART requires strict adherence to prescribed schedules [6]. This has however been a challenging issue to many clients especially in resource limited settings. It is also essential to reach and maintain therapeutic levels of these drugs [7]. Consequently, a low level of adherence to HAART involves client's inability to reach and maintain adherence levels.

## 7. Conclusions

Gender inequalities were found to be prominent in this study where more (72.2%) females were infected with HIV/AIDS as compared to 27.8% males. The prevalence of HIV infection in Kenya is highest among young people between 15-49 years who are in the child-bearing age. Despite adequate knowledge possessed by many individuals regarding ART in the country, stigmatization and discrimination upon disclosure of one's HIV status still remains high. The study also established that there is adequate accessibility and availability of ART in the country.

## 8. Recommendations

Extensive health education about ART and HIV in general should be provided targeting not only the vulnerable groups such as women and youths but also it should include individuals with high educational levels. There is also need to conduct a qualitative research to establish an in-depth analysis of the factors influencing ART adherence in the same study population. This should include a wider range of participants.

## References

- [1] WHO. (2010). Antiretroviral Therapy Guidelines. New York: WHO
- [2] A.D.H Hirrie. (2007). Preventing antiretroviral anarchy in Sub- saharan Africa. In N. J. K, Preventing antiretroviral anarchy in Sub- saharan Africa (pp. 410-414).

- [3] Kenya National Bureau of Statistics (2010). Outlook breaking news: Young people are leading in HIV infection. Geneva, Joint United Nations Programme on HIV/AIDS
- [4] NASCOP. (2012). Expanding Availability and Accessibility of Antiretroviral Drugs in Kenya. In NASCOP, Expanding Availability and Accessibility of Antiretroviral Drugs in Kenya.
- [5] Ministry of Health. (2010). Aids in Kenya: The background projections, impact, interventions and policy. (6<sup>th</sup> ed). Ministry of Health : Division of reproductive health
- [6] Paterson. (2009). Patient adherence to Antiretroviral Therapy in Botswana. Journal of Nursing Scholarship; 41 (2): 149-157
- [7] NACC. (2013). Importance of maintaining the recommended levels of Antiretroviral Therapy. In NACC, Importance of maintaining the recommended levels of Antiretroviral Therapy.