

# Treatment Pattern of People Living With HIV/AIDS at General Hospital Kafanchan, Kaduna State, Nigeria

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## Abstract

*The study examined the treatment pattern of People Living with HIV/AIDS (PLWHA) at the General Hospital Kafanchan, Kaduna State, Nigeria. The study adopted descriptive survey research design. A sample of 422 out of 1,766 PLWHA was drawn using systematic sampling technique. The questionnaire developed for the study had correlation coefficient (r) of 0.78 and complimented with interview guide for non-literate respondents. The study employed frequency distribution and Chi-square ( $X^2$ ) to analyse the data. The study revealed that a significant number of PLWHA adhered to the treatment regimen. The finding further showed that there is no association between socio-characteristics variables of the respondents and adherence to treatment pattern. Adherence to treatment by PLWHA therefore need to be emphasized. Based on the findings, the study recommended that medication adherence be measured using self-mechanism. Where there is deficit such as inadequate knowledge about the adherence to treatment, supportive education would aid in providing information through guidance and counseling on the adherence to treatment.*

**Keywords:** Treatment; Pattern; HIV/AIDS, Living; Treatment pattern; Kaduna.

## Introduction

Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) is widely recognized as a chronic illness, but is often excluded from chronic disease lists outside the field of HIV. Similar to other chronic diseases, HIV requires lifetime changes in physical health, psychological functioning, social relations, and adoption of disease-specific regimen ([Swendeman, Ingram, & Rotheram-Borus, 2009](#)). According to Ijeoma, Salamatu, Anthonia, Paulina, Chika & Chika (2015), HIV/AIDS is one of the major public-health problems worldwide. Similar to other chronic diseases, HIV requires lifetime changes in physical health, psychological functioning, social relations, and adoption of disease-specific regimen. The shift from acute to chronic illness requires a self-management model in which patients assume an active and informed role in healthcare decision making to change behaviours and social relations to optimize health and proactively address predictable challenges of chronic diseases generally and HIV specifically ([Swendeman, Ingram, & Rotheram-Borus, 2009](#)). HIV infection can lead to malnutrition, while poor diet can in turn speed the infection progression. As HIV treatment becomes increasingly available in the poorest parts of the world, critical questions are emerging about how well the drugs work in people if they are short of food (Avert Organization, 2014). Malnourished people are less likely to benefit from antiretroviral treatment (Zachariah et al, 2006). HIV positive people and those who care for them are interested in whatever might benefit their health (Avert Organization, 2014).

In Nigeria, the HIV/AIDS epidemic has entered the generalized phase, where HIV infection advanced well beyond high risk groups into the general population. According to the United Nations AIDS (UNAIDS) statistics of 2003, 10% of people living with HIV/AIDS (PLWHA) worldwide live in Nigeria and the country ranks as one of the HIV/AIDS burdens (Kio-Olayinka & Idogho, 2005). Promoting self-management for PLWHA includes addressing complex issues such as medication adherence. [Baruchin, \(2007\)](#) in [Fernandes \(2007\)](#) expatiated that complexity of adherence to Anti-retroviral Therapy (ART) regimen is recognized as potential barrier to effective management of HIV, which is similar to the complicated self-administered treatments for other chronic and co-morbid conditions. Current antiretroviral treatment control HIV infection and prevent severe wasting as well as other AIDS related conditions. Emaciated people tend to regain weight once they begin treatment (Tang et al, 2005). Disclosure of one's

disease status to others and coping with social rejection are experiences that add stressors to the burden of living with an incurable infectious disease.

U.S. Department of State (2008) observed that the epidemic is more concentrated and driven by high-risk behaviors. According to United Nations AIDS (UNAIDS) statistics 2003, Nigeria accounts for about 10% of PLWHA worldwide (Kio-Olayinka & Idoko, 2005). The HIV epidemic varies widely by region. Some States have more generalized epidemics that are sustained primarily by multiple sexual partners than others. Youth and young adults are vulnerable to HIV, with young women at higher risk than young men (U.S Department of State, 2008). According to Idoko (2013), in 2010 HIV/AIDS prevalence rate in Nigeria was about 4%, Kaduna State had 5.1% on the average and some areas in southern Kaduna have doubled it. In the same year, Kafanchan had a prevalence of 11.4% followed by Kwoi also an area in southern Kaduna with 8.7% which was far above the national average. Idoko (2013) further stated that, the increase in HIV/AIDS was said to be associated with the poor attitude of infected persons towards receiving ARV drugs. The researcher estimated that 70,000 PLWHA out of 300,000 urgently required drugs. However, only half of them were on drugs. Meanwhile, UNAIDS (2013) noted that only a relatively few treatment-eligible people in the sub region are currently receiving ART due to lack of access, it was not certain whether those who have access follow the treatment regime as required. This study therefore aimed at examining the adherence to treatment pattern of PLWHA at General Hospital Kafanchan, Kaduna State, Nigeria.

### **Purpose of the study**

The purpose of this study is to empirically evaluate the treatment pattern of PLWHA at General Hospital Kafanchan, Kaduna State, Nigeria.

The following research questions and hypothesis were developed in this study to provide solutions to the problem under investigation.

### **Research Questions**

What is the level of adherence to treatment regimen by PLWHA?

### **Hypothesis**

HO: There is no significant association between the socio-demographic characteristics of the respondents and the level of adherence to treatment regimen.

### **Methodology**

Descriptive survey was used for the study. The estimated number of PLWHA that attended the ART clinic of GHK within a month was used for the study. A sample of 422 out of 1,766 PLWHA was drawn using systematic sampling technique. The study developed questionnaire with correlation coefficient ( $r$ ) of 0.78 and complimented with interview guide for non-literate respondents. Frequency distribution and Chi-Square were employed to analysed the data.

### **Results and Discussion**

This chapter dealt with presentation of results based on the research questions and the hypothesis developed for the study

**Research Question: What is the level of adherence to treatment regimen by PLWHA?**

**Table 1: Level of adherence to treatment regimen by PLWHA (n = 412)**

<b>Item</b>	<b>%</b>
<b>How often do you keep your clinic appointments?</b>	
Always	88.1
Sometimes	11.9
Seldom	0.0
Never	0.0
<b>If you do not keep your clinic appointments, what is your reason (s)?</b>	
Distance	14.3
Forgetfulness	30.6
Lack of Time	12.2
Personal Reasons	42.9
<b>How many times have you ever missed taking your prescribed drugs?</b>	
None	87.6
Once a week	9.7
Several times a week	1.5
Every day	0.5
Several times in a month	0.7
<b>If you have missed taking your prescribed drugs, what are your reasons?</b>	
Forgetfulness	78.4
Ineffectiveness of treatment	7.8
Lack of time	7.8
Personal reasons	5.9
<b>Which other treatment do you take alongside with your drugs</b>	
Herbal products	
Nutritional supplements	2.2
None	11.2
Others (paracetamol, malaria drugs, flagyl)	82.2
<b>What are your reasons for taking them?</b>	
Cheaper	4.1
Accessible	1.4
Availability	12.5
Others (fever, body pains, headache, tooth ache, diarrhea)	56.9
<b>If you take alcohol, how often do you drink it?</b>	
Not applicable	27.8
Once a week	87.9
Several times a week	5.3
Every day	4.9
Several times in a month	1.5
	0.5

The results above revealed that majority 88.1% (363) respondents always keep their clinic appointments while 11.9% (49) respondents sometimes keep the appointment. Also 14.3% (7) respondents indicated distance to the clinic as the reason for not always keeping the appointment. Meanwhile, 30.6% (15) of the respondents stated they usually forget to keep the appointment while 12.2% (6) and 42.9% (21) adduced lack of time and personal reasons for not keeping the appointment.

On whether they ever missed taking their prescribed drugs, 361 (87.6%) respondents indicated never having missed taking their prescribed drugs, 40 (9.7%) respondents indicated they missed it once weekly, 6 (1.5%) respondents indicated several times a week, 2 (0.5%) respondents indicated every day, 3 (0.7%) respondents indicated that they missed it several times in a month. Out of the 51 respondents that have ever missed taking their drugs, 40 (78.4%) respondents indicated the reason for missing taking their drugs was

forgetfulness, 4 (7.8%) respondents indicated ineffectiveness of treatment, another 4 (7.8%) respondents indicated lack of time and 3 (5.9%) respondents stated personal reasons.

In response to taking any other treatment, majority 340 (82.5%) respondents stated that they do not take any other treatment alongside their drugs, 9 (2.2%) respondents indicated herbal products, 46 (11.2%) respondents indicated nutritional supplements and 17 (4.1%) respondents stated that they take some other treatment like paracetamol, malaria drugs and flagyl. Out of the 71 respondents that take other treatments, 1 (1.4%) respondent indicated it is cheaper, 9 (12.5%) respondents indicated accessible, 41 (56.9%) respondents indicated due to its availability and 20 (27.8%) respondents gave some other reasons such as fever, body pains, headache, tooth ache and diarrhea. In response to frequency of alcohol intake, 362 (87.9%) respondents noted that they do not take alcohol, 22 (5.3%) respondents indicated that they take it once weekly, 20 (4.9%) respondents take it several times weekly, 6 (1.5%) respondents take it every day while 2 (0.5%) respondents take it several times in a month.

**Ho:** There is no significant association between the socio-demographic characteristics variables (age, sex, marital status, highest educational attainment, occupation) of respondents and the adherence to treatment regimen.

**Table 2: Chi-square test of association between the socio-demographic variables (age, sex, marital status, highest educational attainment, occupation) and the adherence to treatment**

Variables	Adherence to Treatment	Chi-Square (X <sup>2</sup> )	P-value
Age		2.037	0.565
Sex		0.93	0.335
Marital Status		0.477	0.49
Educational Qualification		0.992	0.803
Occupation		1.654	0.799
<b>Average</b>	<b>0.012</b>	<b>4.767</b>	<b>0.995</b>

The table above showed the level of association between the socio-demographic variables and the level of treatment pattern of PLWHA in Kafanchan Metropolis, Kaduna State, Nigeria. The study revealed that PLWHA within the age bracket of 48-62 years which represented 88% were always available for treatment and they were mostly women. This number was expected as most of the people in this category were old and might not be in the labour force any longer. The significant value calculated of 0.995 is greater than the P-value (0.05%). The researcher therefore failed to reject the hypothesis which states there is no significant association between the socio-demographic characteristics variables (age, sex, marital status, highest educational attainment, occupation) of respondents and the adherence to treatment regimen. The result further showed that less than two percent of PLWHA made themselves available for treatment.

### Discussion of Findings

Adherence is a major issue in management of chronic disease. There is need for sustained improvement to ensure the optimization of its benefits through continuous adherence and counseling. The PLWHA in the study adhere to their treatment regimen. The adherence to treatment was not associated with their demographic variables investigated. This is because most of PLWHA kept their clinic appointments and as such they did not miss taking their drugs. The findings of this study collaborated with the study findings of Royal, Kidder, Patrabanha, Wolitski, Holtgrave and Aidalet al. (2009); Pennap, Abdullahi and Bako (2013); Onyeonoro, Ebenebe, Ibeh, Nwamoh, Ukegbu and Emelumadu (2014).

Some reasons given by few PLWHA for not keeping their clinic appointments in this study were distance, forgetfulness, lack of time, ineffectiveness of treatment and personal reasons. Similar reasons were given for missing their prescribed drugs which were; forgetfulness, lack of time, ineffectiveness of treatment and personal reasons. Knowledge of the reasons that influence adherence is important in the development of

interventions to improve adherence. This finding is in line with the findings of the study conducted by Pennap, Abdullahi and Bako (2013) that common reasons for non-adherence were found to be forgetfulness, avoidance of drug side effects, distance and cost of transportation to medical centre. This is because the level of adherence in this population still needs improvement through service delivery. However, this finding is in contrast with the findings of Achappa, Madi, Bhaskaran, Ramapuram, Rao and Mahalingam (2013) which reported that alcohol, drugs side effect, depression, stigma and lack of family support were factors associated with reduced adherence. This was as a result of insufficient counseling, which is very essential for the success of ART programme.

## Conclusions

Adherence is the extent to which person's behavior conforms to the available stipulated programme treatment. This is very significant and critical for better outcome. The study therefore concludes that adherence to treatment by PLWHA should be made compulsory to forestall unprecedented effects of non-adherence by PLWHA.

## Recommendations

Based on the findings of this study, it is therefore recommended that medication adherence should be measured using self-report method. However, where there is deficit such as inadequate knowledge about the adherence to treatment, supportive education would aid in providing information through guidance and counseling on the adherence to treatment.

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