



INTRODUCTION

- The human immunodeficiency virus (HIV) is a virus which damages an infected person's immune system.
- Adherence to antiretroviral therapy (ART) is an important predictor of survival among HIV/AIDS patients.
- Studies reported that there are factors associated to non-adherence among HIV patients. These variety of elements differs depending on the environment.
- Objective: Thus, this study aim to determine the factors associated to adherence to ART among people living with HIV on ART at Ahmadu Bello University Teaching Hospital Zaria.

METHODOLOGY

Study design: Cross-sectional study.

Sampling method: Systematic random sampling ; **Participants:** 385 respondents were included in the study aged 18 to 64 years either male or female.

Study location: Ahmadu bello University Teaching Hospital Zaria Kaduna state Nigeria.

Ethical Clearance: Obtained from the Ethics Committee for Research Involving Human Subjects, Universiti Putra Malaysia.

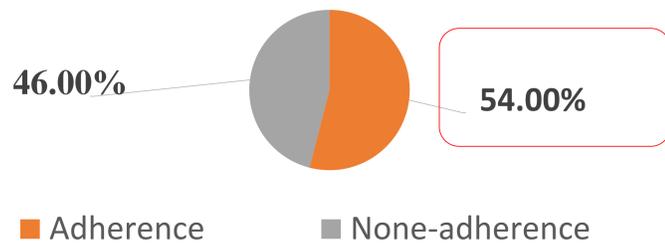
Instrument: Self-administered questionnaire on socio-demographic, food security, BMI, diet diversity, patient beliefs for medicine and limited availability and accessibility of ART and adherence to ART.

Statistical Analysis: Descriptive statistics- all variables (frequency and percentage), chi-square, and logistic regression using SPSS v 25.0.

RESULTS

Prevalence of Adherence to ART

Fig 1. Adherence to ART status (n=385)



DISCUSSION

- The adherence rate reported in this study was low compared to other studies done 87.3 and 82% (Sasaki et al.,2012; Wakibi et al., 2011).
- Age, educational level, occupation, marital status , BMI, food insecurity, diet diversity, distance to clinic, patient beliefs were significantly associated with adherence to ART.
- Respondents who were self-employed were **2.6 times** and government employed were **2.8 times** more likely to be non-adherence to ART. This can be due to busy schedules.
- Respondents who were (divorced or widow) were **2 times** more likely to become non-adherence to ART. This could be as a result of husbands or wives played an essential role in HIV-positive people's adherence.
- Respondents who were food insecure were **1.2 times** and low dietary diversity were **1.7 times** more likely to be non-adherence to ART, this can be due to using ART without food, participants reported having more negative side effects.
- Respondents who had negative beliefs for medicine were **1.5 times** and those who had more concerns of the negative effect of the medication were **1.3 times** more likely to be non-adherence to ART. This may be due to cultural beliefs and lack of knowledge.

REFERENCES

- Sasaki Y, Kakimoto K, Dube C, I S, Moyo C, Syakantu G, et al. Adherence to Antiretroviral therapy(ART) during the early months of treatment in rural Zambia: influence of demographic characteristics and social surroundings of patients. BMC Annals of Clinical Microbiology and Antimicrobials. 2012;11(34):1-11
- Wakibi et al.: Factors associated with non-adherence to highly active antiretroviral therapy in Nairobi, Kenya. AIDS Research and Therapy 2011 8:43.

RESULTS

Table 1: Association between factors and adherence to ART

| Variables | Adhere n (%) | Non- adhere n (%) | χ ² | p |
|--|--------------|-------------------|----------------|----------------|
| Age (Years) | | | 9.179 | 0.010* |
| 18-33 | 44 (61.1) | 28 (38.9) | | |
| 34-48 | 54 (46.2) | 63 (53.8) | | |
| 49-64 | 79 (40.3) | 117(59.7) | | |
| Educational level | | | 8.458 | 0.031* |
| No formal | 16 (9.0) | 16 (7.7) | | |
| Primary school | 38 (21.5) | 28 (13.5) | | |
| Secondary school | 54 (30.5) | 60 (28.8) | | |
| Tertiary | 69 (39.0) | 104 (50.0) | | |
| Occupation | | | 9.061 | 0.011* |
| Unemployed | 53 (59.6) | 36 (40.4) | | |
| Self-employed/ business | 82 (43.4) | 107 (56.6) | | |
| Government employed | 42 (39.3) | 65 (60.7) | | |
| Marital status | | | 7.293 | 0.026* |
| Single | 40 (54.8) | 33 (45.2) | | |
| Married | 110 (47.4) | 122 (52.6) | | |
| Others | 27 (33.8) | 53 (66.3) | | |
| BMI | | | 12.387 | 0.009* |
| <18.5 (under-weight) | 5 (41.7) | 7 (58.3) | | |
| 18.5-24.9 (normal) | 92 (45.5) | 110 (54.5) | | |
| 25.0-29.9 (over weight) | 74 (47.7) | 81 (52.8) | | |
| >30 (obese) | 6 (37.5) | 10 (62.5) | | |
| Food security status | | | 11.446 | 0.001** |
| Food secure | 19 (62) | 31(38) | | |
| Food insecure | 158 (47.2) | 177 (52.8) | | |
| Dietary diversity | | | 10.255 | 0.001** |
| Moderate dietary diversity | 146 (50.7) | 142 (49.3) | | |
| Low dietary diversity | 31 (32.0) | 66 (68.0) | | |
| Distance to the clinic (km) | | | 10.477 | 0.043* |
| Less than 5km | 9 (33.3) | 18 (66.7) | | |
| 5-10km | 26 (54.2) | 22 (45.8) | | |
| 10-15km | 36 (42.4) | 49 (57.6) | | |
| 15-20km | 51 (49.0) | 53 (51.0) | | |
| More than 20km | 55 (45.5) | 66 (54.5) | | |
| Specific-necessity scores | | | 12.812 | 0.050* |
| Negative perceptions of personal need for the medication | 100 (46.5) | 115 (53.5) | | |
| Positive perceptions of personal need for the medication | 77 (54.7) | 93 (45.3) | | |
| Specific-concerns scores | | | 12.826 | 0.048* |
| Less concerns about the negative effects of the medication | 101 (54.5) | 121 (45.5) | | |
| More concerns about the negative effects of the medication | 76 (46.6) | 87 (53.4) | | |

*P<0.05, **P<0.001

Table 2: Factors associated with adherence to ART.

| Variables | Adjusted OR (95% CI) | p |
|----------------------------|----------------------|----------------|
| Occupation | | |
| Unemployed | 1.000 (ref) | |
| Self-employed/business | 2.646(1.335-5.241) | 0.005* |
| Government employed | 2.842 (1.542-5.240) | 0.001** |
| Marital status | | |
| Single | 1.000 (ref) | |
| Married | 1.226 (0.596-2.520) | 0.580 |
| Others | 2.016 (1.111-3.660) | 0.021* |
| Food secure status | | |
| Food secure | 1.000 (ref) | |
| Food insecure | 1.220 (1.642-2.319) | 0.050* |
| Dietary diversity | | |
| Low dietary diversity | 1.792 (1.023-3.139) | 0.042* |
| Moderate dietary diversity | 1.000 (ref) | |
| Belief status | | |
| Specific-necessity | | |
| Negative perceptions | 1.525(1.958-2.427) | 0.045* |
| Positive perceptions | 1.000 (ref) | |
| Specific-concerns | | |
| Less concerns | 1.000 (ref) | |
| More concerns | 1.362 (1.751-2.005) | 0.048* |

*P<0.05, **P<0.001

CONCLUSION

In conclusion, the prevalence of adherence to ART was low among the respondents. Factors associated to adherence to ART identified in this study were occupation, marital status, food insecurity, dietary diversity, patient belief. As a result, improved food security can lead to better adherence to treatment and care recommendations, intervention studies are needed to figure out how. Workplace regulations must be in place to assist persons with chronic conditions such as HIV/AIDS in sticking to their treatment regimens. And also, health care personnel need to be aware of these concerns and the belief of the respondents towards medicine and direct patients' education and intervention to reduce non-adherence.