The Perception of People Living with Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome toward Human Immunodeficiency Virus Infection: A Single-Center Experience

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Abstract

Background: The prevention and control of human immunodeficiency virus (HIV) infection depend on the prevention of new infections as well as treating currently infected individuals. Adequate knowledge of HIV infection among person living with HIV/acquired immunodeficiency syndrome (AIDS) (PLWHA) may be an important tool in reducing spread of the virus. Objective: The objective of the study was to evaluate knowledge and attitude of PLWHA on HIV infection. Methodology: This was a cross-sectional study conducted at the Chukwuemeka Odumegwu Ojukwu Teaching Hospital. Knowledge of infection, spread, control, and effect was sought from HIV-positive respondents using a structured questionnaire. Information about their attitude and beliefs was also obtained. Collected data were analyzed using the Statistical Package for Social Sciences for Windows, Version 21.0. Results: A total of 70 HIV-positive patients, including 23 (32.9%) males and 47 (67.1%) females with a mean age of 37.7 years were participated. The overall knowledge on HIV transmission, clinical effects, complications, and controls was good in 15.7%, average in 72.9%, and poor in 11.4%. Knowledge of means of transmission was appropriate in majority of them. Majority of 66 (94.3%) patients showed a positive attitude to life. Conclusion: Most of the HIV-positive patients had average knowledge on HIV, and majority had a positive attitude to life.

Keywords: Human immunodeficiency virus infection, human immunodeficiency virus transmission, knowledge of human immunodeficiency virus

INTRODUCTION

Recently, the United Nations Programme on human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) reported that approximately 36.7 million people are living with HIV/AIDS worldwide with over 25 million of them in sub-Saharan Africa.1 This shows that sub-Saharan Africa bears the greatest burden of HIV/AIDS accounting for over 68% of the global burden, and thus, making control of HIV in sub-Saharan Africa a global concern. Worldwide, there remains a trend toward increased prevalence of HIV due to improved care and decrease in HIV-related deaths, and therefore, HIV can be described as a chronic disease.2 In addition to this, Nigeria ranks third among the sub-Saharan African countries with the largest number of new infections.3

Often times, new HIV infections occur through sexual contact, and this transmission occurs mostly from persons unaware of their HIV-positive status, because PLWHA who are mindful of their HIV status are more likely to embrace behavioral changes, and hence, practice safe sex to reduce the odds of transmission of HIV.4 Because self-knowledge of HIV has been shown to reduce the high-risk sexual behavior, and

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ultimately, the transmission of HIV to curb the trend toward the increasing incidence of HIV, interventions that promote adequate knowledge of HIV/AIDS, and its spread including mode of transmission and knowledge of vulnerable group is necessary. Other factors that can help to reduce the risk and incidence, which include practice of safe sex, decreasing levels of sexually transmitted diseases, and stigma and discrimination against persons living with HIV/AIDS (PLWHA).

Given the high prevalence of HIV in Nigeria, measures that can prevent the spread such as preventive campaigns should be strengthened or reinforced. More research on the knowledge and attitude of PLWHA to HIV as a useful tool in preventive campaigns may be useful to inform planning of effective patient-centered HIV prevention programs. Therefore, we sought to determine the level of knowledge of HIV and its mode of spread among PLWHA in addition to their attitudes and beliefs.

**Methodology**

**Study design and area**

This was a hospital-based cross-sectional study, carried out at the Antiretroviral Therapy (ART) Clinic of Chukwuemeka Odumegwu Ojukwu University Teaching Hospital (COOUTH) (formerly, Anambra State University Teaching Hospital), Awka, Southeast Nigeria. COOUTH is a tertiary health institution owned by the Anambra State Government. The ART clinic is one of the specialist clinics in COOUTH and it provides care to HIV-positive patients. Whereas the management of HIV/AIDS is multidisciplinary, the ART clinic is domicile in the Community Medicine Department of COOUTH. The clinic is open to clients 3 days in a week and offers the full range of ART services including (but not limited to) counseling, laboratory tests, nursing care, pharmaceutical services (including free antiretroviral drugs), and specialist doctors’ consultation.

**Study population**

The study population was HIV-positive clients who access care at the COOUTH ART clinic. The clinic receives about three new HIV-positive clients in a week.

**Inclusion criteria**

All HIV-positive clients accessing care at the clinic who were 18 years and above, ambulant and gave their consent.

**Exclusion criteria**

All HIV-positive clients who were very sick/bedridden or refused to give consent.

**Study design**

This was a cross-sectional descriptive study.

**Determination of sample size**

The sample size was calculated using the formula for the sample size for opinion surveys. Where,

\[ n = \frac{z^2pq}{d^2} \]

Where,

- \( n \) = minimum sample size
- \( z \) = standard normal deviate = 1.96
- \( d \) = degree of accuracy desired = 0.05
- \( p \) = prevalence from a previous study. In this case, \( P = 0.96 \) which is the proportion of respondents that have good knowledge of HIV according to a previous study.
- \( q \) = 1–\( p \) = 0.04

Therefore,

\[ n = 1.96^2 \times 0.96 \times 0.04/0.05^2 \]

\[ n = 58.4 \]

Assuming 10% attrition:

\[ 10/100 \times 58.4 = 5.84 \]

\[ 58.4 + 5.84 = 64.24 \]

which is approximately 64 for minimum sample size of respondents.

This was made up to 70 such that 70 respondents participated in the study.

**Sampling technique**

Sampling was done using a systematic random sampling method.

**Data collection and interpretation**

Data were collected using a semi-structured questionnaire. The questionnaire was self-administered for the educated respondents, but interviewer-administered for the uneducated respondents.

**Scoring**

The total score was 20 points. Less than 50% of the points indicate poor knowledge, 50%–60% of the score is average knowledge, whereas >60% of the score is good knowledge. In summary, we grouped knowledge below 50% as inappropriate and 50% and above as appropriate.

**Data analysis**

The data were analyzed using the Statistical Package for Social Sciences (SPSS) for Windows, Version 21.0, Chicago, Illinois USA. Frequency tables were used to show the demographic characteristics of the respondents. Chi-square test was used to determine the association between the sociodemographic characteristics and the knowledge of the respondents regarding HIV. The association between their sociodemographic characteristics and their attitude regarding HIV was also determined using Chi-square test. \( P \leq 0.05 \) was considered statistically significant. Results were presented in tables.

**Ethical consideration**

Ethical approval was obtained from the Ethical Committee of COOUTH. The objectives and procedure of the study were well explained to the clients. Only clients, who gave their consent after understanding the study protocol, were
participated in the study. The confidentiality of data provided was insured – clients’ names were not taken, and other demographic data were de-identified.

**RESULTS**

A total of 70 HIV-positive patients comprising 23 (32.9%) males and 47 (67.1%) females participated in the study. Their ages range from 19 to 62 years with a mean of 37.7 years. The peak age range of participants was 30–39 years. Majority (91.4%) are Ibos, 65 (92.9%) had at least primary education, as shown in Table 1. Sixteen (22.9%) are singles, 7 (10.0%) are separated or divorced, and 14 (20.0%) are widowed. Forty-one (60.3%) were self-employed, 66 (94.3%) were Christians, and 50 (71.5%) have been diagnosed for over a year.

The overall knowledge on HIV transmission, clinical effects, complications, and controls was good in 11 (15.7%), average in 51 (72.9), and poor in 8 (11.4%). Knowledge of means of transmission including sharing of sharps, unprotected sex, multiple sexual relationships, and blood transfusion was appropriate in 67 (95.7%), 68 (97.1%), 63 (90.0%), and 67 (95.7%), respectively. Forty-five (64.3%) had appropriate knowledge of transmission from mother to fetus, as shown in Table 2. Knowledge about the effect of HIV infection on the immune system, kidney, and the risk of associated secondary cancers was appropriate in 53 (75.7%), 22 (31.4), and 38 (54.3%), respectively. There was no significant association of the level of knowledge of the respondents with age, gender, marital status, level of education, and duration of illness, as shown in Table 3.

Sixty-six (94.3%) showed a positive attitude to life, and 4 (5.7%) had a negative attitude. There was no significant association of attitude with age, gender, marital status, level of education, and duration of illness [Tables 4 and 5].

**DISCUSSION**

The continuous increase in a number of people living with HIV/AIDS (PLWHA) represents a serious health and economic burden. The control of HIV infection depends on the prevention of new infections as well as treating currently infected individuals. Therefore, adequate knowledge of HIV infection among PLWHA may be an important tool in reducing spread of the virus.

The majority of participants fall within the age range of 30–39 years which appear surprising, because it is expected that the younger age groups should have a higher risk of HIV infection probably due to peer pressure and juvenile delinquency, though not absolute.9 A similar age group was found in a study in Northwest Ethiopia.10 The females were more than the males (61.7%). This is similar to findings made by other groups of researchers in a similar study done in Northern Nigeria and elsewhere.11–13 According to the World Health Organization, about 60% of women are infected by HIV in sub-Saharan Africa,12 supporting a previous report.13 Women in sub-Saharan Africa bear a disproportionate burden of HIV infections, which are exacerbated by their role in society and biological vulnerability.14

Most (92.9%) of our respondents had a formal education of at least primary education. This might have positively influenced their knowledge of the HIV infection because a good number (72.9%) of the respondents had an average knowledge of the subject matter. It is expected that literacy level of individuals may positively affect an individual’s ability to take decisions on several issues probably because of a higher cerebral function. Contrary to our findings, Afolabi et al.15 reported that over 30% of their respondents had no formal education. This may be due to environmental, racial, and socioeconomic variations. It might be beneficial to compare these two populations.

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**Table 1: Demographics of study participants**

| Demographics     | Total |
|------------------|-------|
| **Age**          |       |
| <20              | 1 (1.5) |
| 20-29            | 15 (22.7) |
| 30-39            | 23 (34.8) |
| 40-49            | 15 (22.7) |
| 50-59            | 11 (16.7) |
| ≥70              | 1 (1.5) |
| **Sex**          |       |
| Male             | 23 (32.9) |
| Female           | 47 (67.1) |
| **Tribe**        |       |
| Ibo              | 64 (91.4) |
| Hausa            | 2 (2.9) |
| Others           | 4 (5.7) |
| **Educational status** |   |
| No formal        | 5 (7.1) |
| Primary          | 23 (32.9) |
| Secondary        | 26 (37.1) |
| Tertiary         | 14 (20.0) |
| Postgraduate     | 2 (2.9) |
| **Marital status** |   |
| Single           | 16 (22.9) |
| Married          | 33 (47.1) |
| Separated/Divorced | 7 (10.0) |
| Widowed          | 14 (20.0) |
| **Employment status** | |
| Students         | 10 (14.7) |
| Self employed    | 41 (60.3) |
| Civil/public servants | 7 (10.0) |
| Unemployed       | 10 (14.7) |
| **Religion**     |       |
| Christian        | 66 (94.3) |
| ATR              | 3 (4.3) |
| Others           | 1 (1.4) |
| **DOI**          |       |
| <6 months        | 10 (14.3) |
| 6-12 months      | 10 (14.3) |
| 1-5 yrs          | 20 (28.6) |
| 5-10 yrs         | 30 (42.9) |
Table 2: Knowledge of HIV among participants

| Knowledge                                                                 | Appropriate | Inappropriate | IDK | NR |
|--------------------------------------------------------------------------|-------------|---------------|-----|----|
| 1. HIV can be spread via mosquito bites                                  | 43 (61.4)   | 14 (20.0)     | 13 (18.6) | 1 (1.4) |
| 2. HIV can be gotten as toilet infection                                  | 48 (68.6)   | 14 (20.0)     | 7 (10.0) | 1 (1.4) |
| 3. HIV can be contracted by hugging and shaking infected people          | 65 (92.9)   | 1 (1.4)       | 4 (5.7)  |    |
| 4. HIV can be got through sharing of sharp objects                        | 67 (95.7)   | 3 (4.3)       |    |    |
| 5. HIV can be got from practising unprotected sex                        | 68 (97.1)   | 2 (2.9)       |    |    |
| 6. The risk of HIV infection is increased by having multiple sexual partners | 63 (90.0)   | 5 (7.1)       | 2 (2.9) |    |
| 7. A Pregnant woman with HIV will always infect her unborn child with HIV infection | 45 (64.3)   | 17 (24.3)     | 8 (11.4) |     |
| 8. HIV can be got from transfusing HIV infected blood                     | 67 (95.7)   | 1 (1.4)       | 1 (1.4) | 1 (1.4) |
| 9. Good personal and environmental hygiene can help avoid HIV infection   | 36 (51.4)   | 30 (42.9)     | 4 (5.7) |    |
| 10. Washing private part after sex can help prevent HIV infection         | 48 (68.6)   | 15 (21.4)     | 6 (8.6) | 1 (1.4) |
| 11. Use of condom reduces risk of getting HIV infection                   | 63 (90.0)   | 4 (5.7)       | 3 (4.3) |    |
| 12. HIV can be got by donating blood                                      | 23 (32.9)   | 39 (55.7)     | 4 (5.7) | 4 (5.7) |
| 13. Prayers can cure HIV infection                                       | 23 (32.9)   | 37 (52.9)     | 10 (14.3) |    |
| 14. HIV is an airborne disease                                           | 60 (85.7)   | 1 (1.4)       | 8 (11.4) | 1 (1.4) |
| 15. HIV infection destroys the immune system                             | 53 (75.7)   | 2 (2.9)       | 18 (26.8) | 2 (2.9) |
| 16. People with HIV infection are always sick                            | 46 (65.7)   | 18 (25.7)     | 6 (8.6) |    |
| 17. Someone with HIV infection can get re infected with another strain of the virus if he/she engages in unprotected sex | 50 (71.4)   | 6 (8.6)       | 11 (15.7) | 3 (4.3) |
| 18. HIV infection can lead to kidney failure                             | 22 (31.4)   | 22 (31.4)     | 26 (37.1) |    |
| 19. HIV infection can cause cancer                                       | 38 (54.3)   | 7 (10.0)      | 25 (35.7) |    |

Table 3: Association of knowledge with demographics

|                         | Good | Average | Poor | Total | Chi sq | P   |
|-------------------------|------|---------|------|-------|--------|-----|
| **Age**                 |      |         |      |       |        |     |
| <20                     | 1 (2.1) | 0 (0.0) | 0 (0.0) | 1 (1.5) | 6.472 | 0.774 |
| 20-29                   | 10 (20.8) | 4 (40.0) | 1 (12.5) | 15 (22.7) |       |     |
| 30-39                   | 19 (39.6) | 2 (20.0) | 2 (25.0) | 23 (34.8) |       |     |
| 40-49                   | 10 (20.8) | 3 (30.0) | 2 (25.0) | 15 (22.7) |       |     |
| 50-59                   | 7 (14.6) | 1 (10.0) | 3 (37.5) | 11 (16.7) |       |     |
| ≥70                     | 1 (2.1) | 0 (0.0) | 0 (0.0) | 1 (1.5) |        |     |
| **Sex**                 |      |         |      |       |        |     |
| Male                    | 17 (33.3) | 2 (18.2) | 4 (50.0) | 23 (42.9) | 2.145 | 0.342 |
| Female                  | 34 (66.7) | 9 (81.8) | 4 (50.0) | 47 (67.1) |       |     |
| **Tribe**               |      |         |      |       |        |     |
| Ibo                     | 47 (92.2) | 9 (81.8) | 8 (100.0) | 64 (91.4) | 4.660 | 0.324 |
| Hausa                   | 2 (3.9) | 0 (0.0) | 0 (0.0) | 2 (2.9) |        |     |
| Others                  | 29 (3.9) | 2 (18.2) | 0 (0.0) | 4 (5.7) |        |     |
| **Educational status**  |      |         |      |       |        |     |
| No formal               | 3 (5.9) | 1 (9.1) | 1 (12.5) | 5 (7.1) | 5.222 | 0.734 |
| Primary                 | 14 (27.5) | 5 (45.5) | 4 (50.0) | 23 (32.9) |       |     |
| Secondary               | 20 (39.2) | 3 (27.3) | 3 (37.5) | 26 (37.1) |       |     |
| Tertiary                | 12 (23.5) | 2 (18.2) | 0 (0.0) | 14 (20.0) |       |     |
| Postgraduate            | 2 (3.9) | 0 (0.0) | 0 (0.0) | 2 (2.9) |        |     |
| **Marital status**      |      |         |      |       |        |     |
| Single                  | 13 (25.5) | 2 (18.2) | 1 (12.5) | 16 (22.9) | 2.748 | 0.840 |
| Married                 | 23 (45.1) | 5 (45.5) | 5 (62.5) | 33 (47.1) |       |     |
| Separated/Divorced      | 5 (9.8) | 2 (18.2) | 0 (0.0) | 7 (10.0) |        |     |
| Widowed                 | 10 (19.6) | 2 (18.2) | 2 (25.0) | 14 (20.0) |       |     |
| **Employment status**   |      |         |      |       |        |     |
| Students                | 8 (16.0) | 1 (9.1) | 1 (14.3) | 10 (14.7) | 3.714 | 0.715 |
| Self employed           | 29 (58.7) | 6 (54.5) | 6 (85.7) | 41 (60.3) |       |     |
| Civil/public servants   | 5 (10.0) | 2 (18.2) | 0 (0.0) | 7 (10.0) |        |     |
| Unemployed              | 8 (16.0) | 2 (18.2) | 0 (0.0) | 10 (14.7) |       |     |

Contd...
Generally speaking, the respondents were satisfactorily knowledgeable on HIV transmission, clinical effects, complications, and controls. This may be expected, considering the fact that the hospital is located in an urban area, where study participants were most likely exposed to HIV/AIDS campaigns being carried out in the state and of course, an advantage of their good educational status. It is important to note too that majority of the respondents were aware of HIV reinfection following unprotected sex. The implication of this is that, with their knowledge of spread of HIV, they may be able to help reduce transmission of the virus, especially the resistant strains through safe practices. Ajayi et al.11 recorded good knowledge among their respondents, but Menberu and Kalkay10 reported poor knowledge among their respondents. This could negatively impact on their attitude toward the disease.

We found no significant association of the level of knowledge of the respondents with age, gender, marital status, level of education, and duration of illness. This could be explained partly by the fact that most of our respondents were literate, but no justifiable reasons for other sociodemographic variables. An explanation could be from our sample size, which is small and may have not been able to test for the association between these outcomes variables. Our findings are consistent with that of Menberu and Kalkay, who equally found no association between the extent of knowledge and sociodemographic variables10 contrary; however, to a related study, which found a statistically significant association between knowledge of

| Religion          | Good     | Average | Poor   | Total | Chi sq | P    |
|-------------------|----------|---------|--------|-------|--------|------|
| Christian         | 48 (94.1)| 10 (90.9)| 8 (100.0)| 66 (94.3)| 1.365 | 0.850|
| ATR               | 2 (3.9)  | 1 (9.1) | 0 (0.0) | 3 (4.3) |       |      |
| Others            | 1 (2.0)  | 0 (0.0) | 0 (0.0) | 1 (1.4) |       |      |
| DOI               | <6 months| 8 (15.7)| 2 (18.2)| 0 (0.0) | 10 (14.3)| 5.379| 0.496|
|                   | 6-12 months| 7 (13.7)| 1 (9.1) | 2 (25.0) | 10 (14.3) |       |      |
|                   | 1-5 yrs  | 14 (27.5)| 5 (45.5)| 1 (12.5) | 20 (28.6) |       |      |
|                   | 5-10 yrs | 22 (43.1)| 3 (27.3)| 5 (62.5) | 30 (42.9) |       |      |

| Attitude                                      | Positive | Negative | NR   |
|-----------------------------------------------|----------|----------|------|
| I believe that prayers can heal me even without taking my drugs | 44 (62.9)| 25 (35.7)| 1 (1.4)|
| I take my drugs as advised by my doctor       | 67 (95.7)| 3 (4.3)  |      |
| I am ashamed of my status                     | 51 (72.9)| 18 (25.7)| 1 (1.4)|
| Spreading the infection to other people is good for revenge | 66 (94.3)| 4 (5.7)  |      |
| HIV infection is a death sentence             | 62 (88.6)| 8 (11.4) |      |
| I feel scared, depressed and alone            | 54 (77.1)| 16 (22.9)|      |
| I believe I can live long if I take my drugs properly | 68 (97.1)| 2 (2.9)  |      |

| Table 4: Attitude of subjects towards HIV     |
|-----------------------------------------------|----------|----------|------|
| Table 5: Association of attitude with demographics of subjects |
| Age                                           | Positive | Negative | Total | Chi sq | P    |
| <20                                           | 1 (1.6)  | 0 (0.0)  | 1 (1.5)| 1.139 | 0.951|
| 20-29                                         | 14 (22.6)| 1 (25.0) | 15 (22.7)|       |      |
| 30-39                                         | 21 (33.9)| 2 (50.0) | 23 (34.8)|       |      |
| 40-49                                         | 14 (22.6)| 1 (25.0) | 15 (22.7)|       |      |
| 50-59                                         | 11 (17.7)| 0 (0.0)  | 11 (16.7)|       |      |
| ≥70                                           | 1 (1.6)  | 0 (0.0)  | 1 (1.5)|       |      |
| Sex                                           | Male     | Female   | Total | Chi sq | P    |
| Male                                          | 22 (33.3)| 44 (66.7)| 36 (54.2)| 47 (67.1)|       |
| Female                                        | 25 (37.5)| 7 (10.6) | 32 (47.1)|       |      |
| Educational status                            | No formal| Primary  | Secondary| Tertiary| Postgraduate|       |
| No formal                                     | 5 (7.6)  | 23 (34.8)| 22 (33.3)| 14 (21.2)| 2 (3.0)  |      |
| Primary                                       | 23 (34.8)| 4 (100.0)| 3 (4.5)  | 0 (0.0)  | 1 (25.0) | 4 (5.7) |
| Secondary                                     | 22 (33.3)| 14 (21.2)| 3 (4.5)  | 0 (0.0)  | 1 (25.0) | 4 (5.7) |
| Tertiary                                      | 14 (21.2)| 3 (4.5)  | 1 (25.0) | 0 (0.0)  |       |      |
| Postgraduate                                   | 2 (3.0)  | 1 (25.0) | 0 (0.0)  | 1 (25.0) |       |      |
| Marital status                                | Single   | Married  | Separated/Divorced| Widowed| Employment status |       |
| Single                                        | 16 (24.2)| 29 (43.9)| 7 (10.6) | 14 (21.2)| Students | 10 (15.4) |       |
| Married                                       | 4 (100.0)| 100 (100)| 0 (0.0)  | 0 (0.0)  | 0 (0.0)  | 10 (15.4) |       |
| Separated/Divorced                           | 7 (10.6) | 4 (100.0)| 0 (0.0)  | 0 (0.0)  | 0 (0.0)  | 7 (10.6)  |       |
| Widowed                                       | 14 (21.2)| 0 (0.0)  | 0 (0.0)  | 0 (0.0)  | 0 (0.0)  | 14 (21.2) |       |
| Employment status                             | Students | Self employed | Civil/public servants | Unemployed | Religion |       |
| Students                                      | 9 (13.8)| 39 (60.0)| 7 (10.8) | 10 (15.4)| Christian | 62 (93.9)|       |
| Self employed                                 | 1 (33.3)| 2 (66.7) | 0 (0.0)  | 0 (0.0)  | 4 (100.0)| 66 (94.3)| 0.257 | 0.879|
| Civil/public servants                         | 7 (10.8) | 0 (0.0)  | 0 (0.0)  | 0 (0.0)  | 0 (0.0)  | 7 (10.8)  |       |
| Unemployed                                    | 10 (15.4)| 0 (0.0)  | 0 (0.0)  | 0 (0.0)  | 0 (0.0)  | 10 (15.4) |       |
| Religion                                      | Christian| ATR      | Others   | DOI     | <6 months| 9 (13.6)|       |
| Christian                                     | 62 (93.9)| 3 (4.5)  | 1 (1.5)  | <6 months| 9 (13.6)|       |
| ATR                                           | 3 (4.5)  | 0 (0.0)  | 0 (0.0)  | 6-12 months| 9 (13.6)|       |
| Others                                        | 1 (1.5)  | 0 (0.0)  | 0 (0.0)  | 1-5 yrs  | 19 (28.8)|       |
| DOI                                           | <6 months| 9 (13.6)|       | 1-5 yrs  | 19 (28.8)|       |
| <6 months                                     | 9 (13.6)|       |       | 5-10 yrs | 29 (43.9)|       |
| 6-12 months                                   | 9 (13.6)|       |       | 5-10 yrs | 29 (43.9)|       |
| 1-5 yrs                                       | 19 (28.8)|       |       | 5-10 yrs | 29 (43.9)|       |
| 5-10 yrs                                      | 29 (43.9)|       |       | 5-10 yrs | 29 (43.9)|       |
antiretroviral drugs, marital status, and educational level. Most of our patients (94.3%) had a positive attitude to life. Most of them do not have superstitious beliefs too, and were also not ashamed of their status, which makes this a very valuable resource for patient-based campaigns against HIV/AIDS. Our findings are different from that carried out in a Kenyan Hospital. The findings on positive attitude are also similar to those observed by Afolabi et al.

**Conclusion**

Even though it might have been limited by sample size, this study found sufficient knowledge and a very positive attitude among PLWHA. It is noteworthy that many of them were not ashamed of their status. This information may be useful in creating policies and campaigns against HIV/AIDS that may be useful in the control of spread of the virus.

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**Conflicts of interest**

There are no conflicts of interest.

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